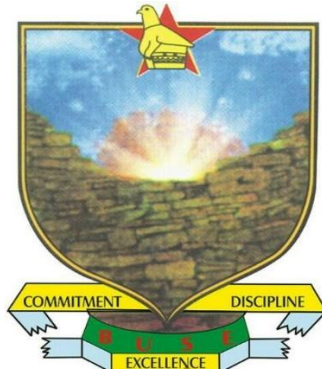


**BINDURA UNIVERSITY OF SCIENCE EDUCATION
FACULTY OF SOCIAL SCIENCES AND HUMANITIES
DEPARTMENT OF SOCIAL WORK**



**FOOD DEFICIT MITIGATION STRATEGY (FDMS) PROGRAM AND ELNNINO-
INDUCED FOOD INSECURITY AMONG THE ELDERLY OF WARD 15 OF MAZOWE
RURAL DISTRICT.**

BY

CHINANGA TAKUNDA

B213393B

**A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE BACHELOR OF SCIENCE HONORS DEGREE IN
SOCIAL WORK IN THE DEPARTMENT OF SOCIAL WORK, FACULTY OF SOCIAL
SCIENCES AND HUMANITIES AT BINDURA UNIVERSITY OF SCIENCE
EDUCATION.**

JUNE 2025

BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF SOCIAL SCIENCES AND HUMANITIES

DEPARTMENT OF SOCIAL WORK



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Student Signature

Date

Chinanga Q

22/8/25

Supervisor Signature

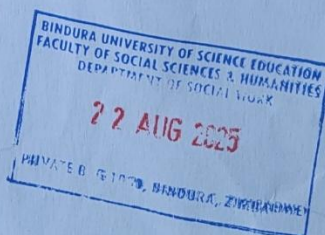
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Approval form

I do hereby declare that the student.....

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Furthermore I attest that he has gone through all the required procedures, also he has met all the requirements I assigned him as the supervisor.

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Chairperson of Department Board of Examiners

The departmental board of examiners is satisfied that this project report meets the examination requirements and therefore recommend to Bindura University to accept a research project by Takunda Chinanga in partial fulfilment of the requirements for the Bachelor of Science Honours Degree in Social Work.

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Declaration and Release form

I, **Takunda Chinanga**, do hereby declare that this research project is the result of my own research, except to the extent indicated in the acknowledgements, references and my comments included in body of the report, and that it has not been submitted in part or in full for any other degree to any other University.

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Acknowledgements

I'm deeply grateful to my supervisor, Mr. L Nyamaka, for his invaluable guidance, patience, and expertise that made this research study a success. Working with him was an enriching experience, and his critical insights on my drafts were instrumental in shaping this dissertation. I'm thankful for his dedication, without which this work would not have been possible.

My family has been my rock, providing unwavering support and love throughout my academic journey. I extend my heartfelt gratitude to my mother, Susan Ngirato, my grandmother, Deria Chinanga, and my brother, Kudzanai Chinanga, for being my pillars of strength.

I'm also indebted to my friends and fellow social work students who listened to my research ideas, offered encouragement, and provided a supportive ear, even when they had demanding schedules themselves. Thank you for being there for me. I appreciate the Student Affairs Office for their assistance with financial and social challenges, particularly through the work-study program in my final year. Your support has been a game-changer, enabling me to complete my studies.

Special thanks to Mr. Nyamutamba, senior social worker, and the entire Food Deficit Mitigation Strategy team, including councilor Boti and chief Chiweshe, for their assistance with community mobilization during this research. Your contributions made a significant difference.

I'm also grateful to the over 60 project beneficiaries in Mazowe District ward 15 and all research participants for their dedication and willingness to participate in this study.

Above all, I thank the Almighty God for granting me good health, energy, and determination to complete this research without major setbacks.

Dedication

To my queen and loving grandmother Deria Chinanga, who took care of my welfare and has always sacrificed everything she has to make me the person I am today.

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Name:

Registration No:

MARKING GUIDE: UNDERGRADUATE RESEARCH PROJECT

Chapter 1 INTRODUCTION	Possible Mark	Actual Mark
Abstract	10	
Background to the study- what is it that has made you choose this particular topic? Include objectives or purpose of the study	20	
Statement of the problem	10	
Research questions	15	
Assumptions	5	
Significance of the study	15	
Limitations of the study	5	
Delimitations of the study	5	
Definition of terms	10	
Summary	5	
Total	100	
Weighted Mark	15	

Comments.....
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Chapter 2 LITERATURE REVIEW

Introduction- what do you want to write about in this chapter?	5	
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Conceptual or theoretical framework	10	
Identification, interpretations and evaluation of relevant literature and citations	40	
Contextualisation of the literature to the problem	10	
Establishing gaps in knowledge and how the research will try to bridge these gaps	10	
Structuring and logical sequencing of ideas	10	
Discursive skills	10	
Summary	5	
Total	100	
Weighted Mark	20	

Comments.....
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Population, sample and sampling techniques to be used in the study	25	
Procedures for collecting data	15	
Data presentation and analysis procedures	10	
Summary	5	
Total	100	
Weighted Mark	25	

Comments.....
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Chapter 4 DATA PRESENTATION, ANALYSIS AND DISCUSSION

Introduction	5	
Data presentation	50	

Is there any attempt to link literature review with new findings	10	
How is the new knowledge trying to fill the gaps identified earlier	10	
Discursive and analytical skills	20	
Summary	5	
Total	100	
Weighted Mark	30	

Comments

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Chapter 5 SUMMARY, CONCLUSION AND RECOMMENDATIONS

Introduction- focus of the chapter	5	
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Recommendations(should be based on findings) Be precise	30	
References	5	
Appendices i.e. copies of instruments used and any other relevant material	5	
Total	100	
Weighted mark	10	

Comments

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SUMMARY:-

	Actual	Total
<u>Chapter 1</u>		
<u>Chapter 2</u>		
<u>Chapter 3</u>		
<u>Chapter 4</u>		
<u>Chapter 5</u>		
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ABSTRACT

This study examined the role of the Food Deficit Mitigation Strategy (FDMS) in addressing elnnino-induced food insecurity among the elderly in Ward 15 of Mazowe Rural District, Zimbabwe. The research was motivated by the recurring experiences of hunger and poverty among rural elderly populations, which are exacerbated by climate shocks such as droughts. Despite the existence of food aid programs like FDMS, elderly persons often remain underserved due to logistical, administrative, and structural limitations that hinder effective delivery. A qualitative research design was adopted, involving 23 purposively selected participants 15 elderly FDMS beneficiaries and 8 key informants from government, local leadership, and NGOs. Data were collected through semi-structured interviews and focus group discussions to capture both lived experiences and institutional perspectives. Findings showed that while FDMS provides critical food support, its impact is constrained by irregular distribution, insufficient nutritional content, limited coverage, and exclusion errors. The program lacks integration with essential services such as healthcare, psychosocial support, and nutrition education. Elderly-specific challenges such as physical immobility, poor information access, and weak family support systems further undermine effectiveness. The study concludes that although FDMS offers vital support, its design and implementation need reform. Recommendations include decentralizing food distribution, integrating complementary services, and strengthening targeting and monitoring mechanisms. The study further proposes the Elderly Food Security Empowerment Model (E-FSEM), a community-based approach that promotes local ownership, inter-sectoral collaboration, and holistic support for elderly food security in rural Zimbabwe.

Acronyms

COVID-19 - Coronavirus Disease 2019

FAO - Food and Agriculture Organization

FDMS - Food Deficit Mitigation Strategy

IPCC - Intergovernmental Panel on Climate Change

NGO - Non-Governmental Organization

UN - United Nations

WFP - World Food Programme

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CHAPTER ONE

1.1 Introduction

This chapter presents the background of food insecurity across multiple dimensions and continents. The aim, objectives, assumptions and significance of the study will also be discussed in this chapter. To allow maximum participation of participants and key informants, research questions will also be drawn in this chapter.

1.2 Background to the Study

Food insecurity has historically been a recurring challenge, shaped by an evolving interplay of environmental, socio-economic, and political factors. Since the early 20th century, food availability and access have fluctuated globally due to world wars, colonial exploitation, population booms, and the onset of industrial agriculture. The post-World War II era saw the emergence of global relief mechanisms, such as the establishment of the World Food Programme (WFP) in 1961, aiming to reduce global hunger. While the Green Revolution in the 1960s and 70s promised technological breakthroughs in food production, it also deepened inequalities between regions with access to irrigation and fertilizer and those without. These historical developments laid the foundation for unequal food systems that persist to this day (Pingali, 2016).

Despite these efforts, food insecurity has persisted and in some cases worsened. Structural Adjustment Programs (SAPs) implemented in many developing nations in the 1980s and 1990s, while intended to stabilize economies, often resulted in reduced government support for agriculture and social safety nets. According to Gillespie and van den Bold (2017), such neoliberal reforms weakened rural safety nets and undermined access to food for the poor. Over time, rising populations, land degradation, and shifts in economic priorities left millions especially the elderly vulnerable to chronic hunger and dependence on aid.

At the global level, food insecurity has become more complex and widespread in the 21st century. According to the Food and Agriculture Organization (FAO, 2023), over 735 million people faced chronic hunger in 2022, up from 618 million in 2019, largely due to climate shocks, conflict, and

post-pandemic economic instability. Climate-induced disasters, particularly those linked to the El Niño phenomenon, have destabilized agricultural production across continents. The FAO (2021) highlights that El Niño events significantly affect rainfall distribution, reduce crop productivity, and increase the frequency of droughts and floods, thereby destabilizing global food supply chains and amplifying hunger risks in vulnerable regions. The war in Ukraine has further disrupted grain exports, especially to low-income countries, pushing food prices higher. According to the World Bank (2022), global food prices rose by over 30% between 2020 and 2022, a devastating development for populations in the Global South already struggling with inflation and stagnating incomes. These global disruptions are disproportionately affecting women, children, and the elderly populations with fewer resources and adaptive capacities.

Regionally, Sub-Saharan Africa remains one of the hardest-hit regions in terms of food insecurity. The Global Report on Food Crises (2022) estimated that more than 140 million people in Africa experienced acute food insecurity, with East and Southern Africa being among the most affected due to prolonged droughts and conflict-related displacements. Countries such as Mozambique, Malawi, and Zambia continue to endure food crises exacerbated by extreme weather events.

Additionally, the region's dependence on rain-fed agriculture makes it highly vulnerable to climate variability. The African Climate Policy Centre (ACPC, 2020) notes that climate change could reduce agricultural productivity in Africa by up to 30% by 2050 unless urgent adaptation measures are taken. Rising temperatures, unpredictable rainfall patterns, and pest invasions (such as the 2020 locust outbreak) further threaten regional food systems. Social protection systems are often weak, and elderly population.

In Zimbabwe, food insecurity has deepened due to a confluence of factors. The collapse of commercial agriculture post-land reform, frequent climate shocks, and economic volatility have resulted in chronic food shortages. According to the Zimbabwe Vulnerability Assessment Committee (ZIMVAC, 2023), about 38% of rural households were food insecure during the 2022–2023 lean season. Elderly people, in particular, face challenges related to poor mobility, health deterioration, and weak social protection. Mavhura and Manyeruke (2021) assert that Zimbabwe's elderly population often lacks social support systems, making them highly susceptible to food-related shocks.

According to the World Food Programme (WFP, 2022), approximately 5.6 million Zimbabweans required food assistance in 2022, with a majority residing in rural areas. The impact of climate events, including back-to-back droughts and Cyclone Idai in 2019, destroyed infrastructure and livelihoods, leaving already vulnerable groups more exposed to hunger. Zimbabwe's inflation rate, one of the highest in the world, has further eroded household purchasing power, making food unaffordable for many. Additionally, persistent power outages, fuel shortages, and limited agricultural financing have undermined national efforts to ensure food security, especially for marginalized communities such as the elderly.

Ward 15 of Mazowe Rural District in Mashonaland Central Province exemplifies the food insecurity crisis faced in rural Zimbabwe. The ward is predominantly rural, with many elderly-headed households depending on rain-fed agriculture. Prolonged dry spells, worsened by elnnino effects, have reduced household food production and access to markets. Many elderly individuals in the area survive on minimal incomes and rely heavily on food aid, social networks, or informal coping mechanisms. However, limited transportation, poor targeting in food aid programs, and low nutrition awareness continue to exclude the most vulnerable. According to Chikozho and Dube (2020), such logistical and administrative weaknesses are among the leading barriers to effective food aid delivery in rural Zimbabwe.

To address these challenges, the government of Zimbabwe launched the Food Deficit Mitigation Strategy (FDMS) aimed at cushioning vulnerable groups, including the elderly, against the effects of food scarcity. While the FDMS provides critical services such as maize meal distribution, nutrition education, and limited agricultural support, implementation gaps persist. These include inconsistent supply chains, lack of culturally appropriate food, and inadequate outreach to marginalized elderly populations. Moyo et al. (2021) argue that while government efforts show promise, the effectiveness of FDMS depends on timely delivery, community participation, and context-sensitive targeting.

Furthermore, little attention has been given to the psychosocial effects of food insecurity on the elderly. Chronic hunger is associated not only with physical deterioration but also with stress, depression, and diminished self-worth especially among elderly individuals who are often caregivers for orphaned grandchildren or who live alone. These intersecting vulnerabilities compound the risk and intensity of food insecurity, reinforcing the need for inclusive and

community-based food security strategies. According to Mutambara and Mugambiwa (2017), any food security initiative targeting the elderly must also address emotional wellbeing and social inclusion to be truly effective.

Against this backdrop, this study seeks to critically examine the nature and effectiveness of the FDMS in addressing El Niño-induced food insecurity among the elderly in Ward 15 of Mazowe Rural District. The findings are expected to inform improved implementation strategies and policy interventions that are responsive to the needs of one of the country's most vulnerable populations. In doing so, this research hopes to contribute to the design of more inclusive, age-sensitive, and climate-resilient food security frameworks that safeguard human dignity and promote sustainable rural livelihoods.

1.3 Problem Statement

Food insecurity among the elderly population in Ward 15 of Mazowe Rural District, Zimbabwe, has become a pressing issue, exacerbated by the El Niño phenomenon and inadequate support from current food assistance initiatives. The main problem is that elderly individuals in Ward 15 are unable to secure sufficient and nutritious food, particularly during the lean season, which is marked by significant food shortages and heightened vulnerability. This demographic faces major obstacles in acquiring food independently due to limited resources and mobility.

This situation predominantly affects the elderly residents of Ward 15, many of whom struggle with chronic health problems and financial limitations. Researchers Osei and Osei (2021) emphasize that this demographic is especially vulnerable to food insecurity, highlighting the critical nature of this issue.

Food insecurity among seniors is a significant concern, as it leads to negative health effects and a diminished quality of life. Malnutrition can exacerbate pre-existing health conditions and increase the risk of new illnesses, creating a cycle of dependency and poverty. Studies by Moyo and Nyoni (2020) reveal that numerous older adults rely on external assistance, which often fails to adequately address their specific nutritional requirements.

The consequences of food insecurity for this demographic are significant. Many elderly individuals experience malnutrition, which can lead to higher rates of illness, increased healthcare expenses, and a heavier burden on social support systems. Studies indicate that food insecurity can

exacerbate health issues, resulting in a greater risk of hospitalization and higher mortality rates among the elderly (Senzanje et al., 2019). Additionally, insufficient nutritional support undermines broader goals of achieving food security and enhancing community resilience in Zimbabwe.

While specific data for Ward 15 may be limited, it has been reported that food insecurity in the province rose by 35% in 2022 (Mavhura and Chari, 2019). The elderly population, which constitutes a significant portion of those affected, remains especially vulnerable. The lack of effective assistance during critical times, coupled with the impacts of El Niño, further intensifies their difficulties.

Existing food assistance initiatives aim to alleviate food shortages by providing resources and nutritional support to those most impacted by food deficits. However, despite these efforts, elderly residents in Ward 15 continue to face considerable food insecurity due to logistical challenges in food distribution, inadequate outreach, and a failure to implement tailored interventions that address their unique needs. Addressing these deficiencies is vital for improving food security and overall well-being among the elderly population in the region.

1.4 Aim of the Study

The study analyses the Food Deficit Mitigation Strategy (FDMS) program in relation to addressing El-nino-induced food insecurity among the elderly of ward 15 of Mazowe rural district, Zimbabwe.

1.5 Research Objectives

1. To analyse the Food Deficit Mitigation Strategy (FDMS) program services provided to the elderly in addressing el-nino induced food insecurity in ward 15 of Mazowe district.
2. To examine the challenges associated with the Food Deficit Mitigation Strategy (FDMS) program services in addressing elnnino -induced food insecurity to the elderly of ward 15, Mazowe district.
3. To scrutinize the food security benefits realised by people in Mazowe district through the Food Deficit Mitigation Strategy (FDMS) program in ward 15 of Mazowe rural district.

1.6 Research Questions

1. What services are given to the elderly under the Food Deficit Mitigation Strategy (FDMS) program in addressing el-nino induced food insecurity in ward 15 Mazowe district?
2. What challenges are associated with the Food Deficit Mitigation Strategy (FDMS) program services in addressing el-nino-induced food insecurity to the elderly in ward 15, Mazowe District?
- 3a. what food security benefits have been realized by households through the Food Deficit Mitigation Strategy (FDMS) program in ward 15 Mazowe rural district.
- b. What are community perspectives on the effectiveness of the Food Deficit Mitigation Strategy (FDMS) program in addressing food insecurity in households of ward 15 Mazowe rural district?

1.7 Significance of the study

The significance of this study on the Food Deficit Mitigation Strategy and its effects on elnnino-induced food insecurity among elderly people in Ward 15 of Mazowe Rural District is evident in several key areas. The research aims to highlight the specific needs of this demographic and guide the development of targeted interventions to improve their access to food and nutritional resources.

Findings from this study can provide valuable insights for policymakers and program implementers in Zimbabwe. By evaluating the effectiveness of the Food Deficit Mitigation Strategy, the research can inform necessary policy adjustments to better address the impacts of climate change, particularly elnnino, on food security for the elderly.

This research contributes to the broader literature on food security by exploring the relationship between climate variability, seasonal food shortages, and the unique vulnerabilities of older adults. This perspective is essential, as many existing studies often overlook the elderly, thus addressing a significant gap in both academic and practical understanding.

The study is crucial for promoting sustainable solutions; understanding how elnnino, and seasonal food insecurity affect elderly individuals can aid in developing strategies that address immediate

food needs while enhancing long-term resilience. It aims to foster approaches that improve the adaptive capacity of elderly people, ensuring their well-being in the face of ongoing climate challenges.

Additionally, the study's relevance to Education 5.0 is significant, as it emphasizes the importance of integrating practical solutions into educational frameworks. By examining food security issues faced by the elderly, the research can inform educational programs that equip students and communities with the knowledge and skills necessary to address food-related challenges. This alignment with Education 5.0 encourages a holistic approach to learning, fostering innovation and community engagement in tackling real-world problems.

Furthermore, the findings of this research are expected to influence new policies and advocate for more effective measures to alleviate poverty. The outcomes will also be beneficial for stakeholders looking to create mitigation strategies. Ultimately, it is hoped that insights from this study will assist in planning and provide fresh perspectives on government intervention initiatives.

1.8 Delimitations of the study

This study will be confined to the residential area of Ward 15 in Mazowe Rural District (Glendale) in Mashonaland Province of Zimbabwe. It focused on the residents of the above mentioned area. The data sources will be, the elderly, residents and village heads, ward councilor and FDMS programmes manager of the given area. The researcher chose the area because he was not aware of any related studies that had been carried out in the area. Just like other studies, the researcher will be guided by some objectives .It will be carried out in a bid to understand how food insecurity affects the elderly and how effective is the FDMS program in addressing food insecurity to the elderly in the lean season.

1.9 Definition of Key terms

1.9.1 Food Deficit Migration Strategy (FDMS)

The Food Deficit Mitigation Strategy (FDMS) is an initiative aimed at alleviating food insecurity by providing immediate food assistance, nutritional education, and agricultural support to vulnerable populations. It focuses on enhancing food availability and promoting long-term sustainability through community engagement and capacity building (Chikozho & Nyamunda, 2020; Moyo et al., 2021).

1.9.2 Food Insecurity

Food insecurity refers to the lack of reliable access to sufficient, safe, and nutritious food necessary to maintain a healthy and active life. It encompasses both the quantity and quality of food available and is influenced by economic, environmental, and social factors (Babatunde et al., 2020; Gundersen & Ziliak, 2015).

1.9.3 Elderly Residents

Elderly residents are individuals typically aged 60 years and above, who often face unique vulnerabilities related to food insecurity, such as limited mobility, chronic health conditions, and social isolation, which affect their ability to access adequate nutrition (Osei & Osei, 2021; Senzanje et al., 2019).

1.9.4 Elnino phenomenon

Elnino is a climatic event characterized by the periodic warming of sea surface temperatures in the central and eastern Pacific Ocean, which disrupts weather patterns globally. It often leads to extreme weather such as droughts and floods, significantly impacting agricultural productivity and exacerbating food insecurity (Mastrorillo et al., 2016; FAO, 2020).

1.9.5 Nutritional Education

Nutritional education involves providing knowledge and skills related to healthy eating practices, dietary diversity, and food preparation techniques to improve nutritional outcomes. It is a key component of food security programs aimed at empowering individuals to make informed food choices (Mavhunga & Gumbo, 2022; Ruel & Alderman, 2013).

1.9.6 Agricultural Support

Agricultural support refers to assistance provided to farmers and communities in the form of training, access to seeds, tools, and sustainable farming techniques to improve food production and resilience against climate variability. This support is essential in rural areas to enhance food security and livelihoods (Moyo et al., 2020; Dube & Chikozho, 2023).

1.9.7 Sustainability

Sustainability in the context of food security implies the ability to maintain adequate food availability and access over the long term without depleting natural resources or compromising future generations' ability to meet their food needs (Chikoko et al., 2022; SUN, 2020).

1.9.8 Food Security

Food security exists when all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life (FAO, 2018; Gonzalez et al., 2021).

1.9.9 Socio-Ecological Theory

The Socio-Ecological Theory, developed by Bronfenbrenner (1970s), explains food insecurity as a phenomenon influenced by multiple interconnected systems including individual, social, and environmental factors. It highlights the need for multi-level interventions addressing personal, community, and societal determinants (Morland et al., 2018; Gundersen & Ziliak, 2015).

1.9.10 Chapter Summary

This chapter offered an overview of the study, highlighting food insecurity as a significant threat to elderly individuals, detailing the extent of the issue, and discussing the interventions implemented to tackle it. In addition to presenting the background, the chapter outlined the statement of the problem, the study's aims, research objectives, and questions, as well as the significance, limitations, and delimitations of the research. The next chapter will review relevant literature that focuses on evaluating the impact of interventions under the Food Deficit Mitigation Strategy in alleviating poverty among the elderly.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter outlines the literature and theoretical framework pertinent to the Food Deficit Mitigation Strategy (FDMS) program and its effects on food insecurity related to El Niño among the elderly in Ward 15 of the Mazowe rural district, Zimbabwe. It will examine prior research on food insecurity, highlighting the distinct difficulties faced by older individuals in rural communities. Furthermore, the chapter will present essential theoretical frameworks that inform this study, concentrating on the relationships between environmental factors, socio-economic conditions, and policy responses. By establishing this basis, the chapter seeks to illuminate the effectiveness of the FDMS program in alleviating food insecurity for this vulnerable demographic.

2.2 Theoretical Framework

2.2.1 Socio-Ecological Theory of Food Insecurity

The Socio-Ecological Theory, conceptualized by Urie Bronfenbrenner in the 1970s, offers a detailed framework to understand the complex dynamics of food insecurity. Initially designed to investigate human development, this model highlights that food insecurity is shaped by a variety of interconnected systems, including personal, social, and environmental factors. Its relevance to food insecurity has become particularly evident in public health and nutrition research, facilitating a thorough examination of how diverse levels of influence affect food access and dietary habits. The theory maintains that food security transcends individual circumstances, being closely linked to broader social, economic, and environmental contexts. For example, research by Morland et al. (2018) demonstrates that food deserts regions with limited access to affordable and nutritious food significantly affect low-income communities, worsening food insecurity. Studies that apply this framework show that addressing the interplay between individual situations, social networks, and

community resources can greatly enhance the effectiveness of interventions (Gundersen & Ziliak, 2015). By acknowledging these various levels, the Socio-Ecological Theory aids researchers, stakeholders and policymakers in pinpointing the fundamental causes of food insecurity and crafting targeted strategies to alleviate its effects.

In relation to this study, the theory corresponds closely with several key objectives. First, when evaluating the degree of food insecurity experienced by older adults and identifying specific nutritional deficiencies, the framework underscores the significance of both individual and relational elements. Research by Karp et al. (2014) emphasizes that factors such as personal health, mobility, and social support are crucial in determining access to nutritious food. Secondly, the investigation of social, economic, and environmental factors contributing to food insecurity directly aligns with the broader societal influences highlighted in the theory. This connection allows for a comprehensive exploration of how systemic issues, including economic challenges and climate change, affect food access for the elderly population. Finally, assessing the effectiveness of current food assistance programs fits within the community and societal dimensions of the Socio-Ecological Theory. Evaluating these interventions in light of local resources and policy frameworks enables this study to identify gaps and opportunities for enhancing food security among vulnerable groups.

2.2.2 Nutrition-Sensitive Development Theory

The Nutrition-Sensitive Development Theory arose in the early 2000s as a strategic approach to tackle the pervasive issues of malnutrition and food insecurity, especially in developing countries. Key organizations such as the World Bank and the Food and Agriculture Organization (FAO) have significantly influenced the development of this theory, which emphasizes the importance of integrating nutrition into broader development strategies. The theory asserts that achieving meaningful nutritional outcomes necessitates addressing the underlying social, economic, and environmental determinants of food insecurity. Ruel and Alderman (2013) argue for multi-sectoral strategies that connect agriculture, health, education, and social protection, ensuring that interventions are holistic and sustainable. For instance, programs designed to enhance agricultural practices can boost food production and improve dietary diversity, leading to better nutritional results. The Scaling up Nutrition (SUN) movement has successfully implemented this theory in

various settings, illustrating how nutrition-sensitive initiatives can significantly enhance the health and well-being of at-risk populations (SUN, 2020).

In connection with this study, the Nutrition-Sensitive Development Theory provides a vital framework for assessing the health implications of food insecurity for older adults. By focusing on the relationships between food access and health outcomes, the theory highlights the urgent need to address malnutrition and its associated health issues among the elderly. Moreover, when developing targeted action plans, this theory emphasizes the necessity of creating integrated approaches that not only improve food access but also enhance the nutritional quality of available food. Scholars like Hoddinott (2015) stress the importance of thoroughly understanding the challenges faced by older individuals, particularly in the context of food insecurity exacerbated by events such as El Niño. By aligning with this theory, this study can effectively address the multifaceted dimensions of food insecurity, leading to actionable strategies that enhance the overall quality of life for elderly residents in Ward 15.

2.3 Main Literature

2.3.1 Global overview of food insecurity

Food insecurity is a pressing global issue, impacting millions worldwide. It's marked by unreliable access to enough safe, nutritious food, leading to chronic hunger, malnutrition, and healthy diet challenges (FAO, 2018). Factors like economic conditions, agricultural productivity, and social safety nets contribute to food insecurity (Babatunde et al., 2020). As the global population grows and climate change worsens, food security complexities will likely increase, emphasizing the need for innovative solutions (Smith & Mazzocchi, 2019).

The worldwide landscape of food insecurity reveals significant inequalities. While some countries have made notable strides in reducing hunger, others still experience severe food shortages. According to the Food and Agriculture Organization (FAO), approximately 690 million individuals were undernourished in 2019, a number that has deteriorated due to the COVID-19 pandemic and ongoing conflicts (FAO, 2020). Regions such as sub-Saharan Africa and South Asia are especially at risk, where economic instability, political unrest, and environmental issues

exacerbate the threats of food insecurity (Devereux, 2016; Ruel et al., 2019). Understanding these regional dynamics is crucial for implementing effective interventions.

Furthermore, climate change significantly impacts food security. Extreme weather conditions, including droughts, floods, and shifting precipitation patterns, disrupt agricultural production and threaten food supplies (Schroter et al., 2015). The Intergovernmental Panel on Climate Change (IPCC) has cautioned that climate change could push an additional 100 million people into extreme poverty by 2030, complicating global food security efforts (IPCC, 2019). Thus, addressing climate-related challenges is vital for any comprehensive strategy aimed at tackling food insecurity (Lobell et al., 2015).

Efforts to combat food insecurity are varied and multifaceted, ranging from international aid programs to local community initiatives. Organizations such as the World Food Programme (WFP) and numerous non-governmental organizations (NGOs) play essential roles in delivering immediate assistance while also promoting sustainable agricultural practices (WFP, 2021). Additionally, policies aimed at improving food systems, enhancing market access, and strengthening social protection measures are critical for building resilience against food insecurity (Gonzalez et al., 2021; FAO, 2020). By adopting a comprehensive approach that acknowledges the interconnectedness of these factors, stakeholders can work towards creating a more food-secure world for all.

The reality of global food security is stark, one in nine people worldwide suffers from undernourishment; nearly half of all deaths among children under five are associated with poor nutrition; and one in four children globally, and one in three in developing nations, experiences stunted growth (UN, 2021). Both developed and developing countries face challenges related to hunger and malnutrition, though the majority of those affected reside in developing regions (Gonzalez et al., 2021). South Asia, in particular, carries the largest burden of hunger, while sub-Saharan Africa has the highest rates of undernourishment (FAO, 2020). Additionally, there are increasing concerns within the international community regarding the ability to meet future food demands (Ingram, 2021).

The global food price crisis of 2008 and subsequent price increases rekindled interest in food security on political, societal, and scientific levels (Barrett, 2016). However, much of the discourse surrounding food security at both global and national levels has primarily focused on supply

challenges specifically, how to produce sufficient food to nourish everyone (Pinstrup-Andersen, 2018). This perspective emphasizes enhancing crop production and productivity as a key strategy to alleviate hunger and malnutrition, particularly in lower-income countries. In these economies, a large portion of the population resides in rural areas and relies on agriculture for their livelihoods (FAO, 2018). Therefore, improving food production can lead to increased incomes for smallholder farmers, thereby enhancing their food security and nutritional well-being (World Bank, 2021).

2.3.2 Food Deficit Mitigation Strategy (FDMS) Program

The Food Deficit Mitigation Strategy (FDMS) Program is a vital initiative aimed at addressing food insecurity and improving food availability in countries facing significant agricultural challenges. On a global level, the FDMS serves as a framework for nations dealing with food shortages, particularly those affected by climate change and economic instability. For instance, countries like Ethiopia and Sudan have implemented similar strategies to enhance food security through sustainable agricultural methods and community participation. Recent studies by Ayalew et al. (2021) underscore the importance of integrating local knowledge and sustainable practices in combating food deficits.

In the context of Zimbabwe, the FDMS program specifically focuses on boosting food production and ensuring equitable access for vulnerable populations. The initiative seeks to strengthen the resilience of smallholder farmers by providing training, resource access, and promoting climate-smart agricultural practices. Researchers such as Moyo et al. (2020) emphasize that these efforts are essential for improving food security, especially in rural areas where many households rely on subsistence farming. The program also stresses the importance of diversifying crops to adapt to climate variability, given Zimbabwe's susceptibility to climatic events like El Niño.

The FDMS consists of various components designed to tackle the underlying causes of food insecurity. These elements typically include agricultural support, social safety nets, and community-based food distribution strategies. For example, initiatives that supply seeds and fertilizers to farmers can significantly increase productivity. Research by Nyanga et al. (2019) shows that such programs have successfully boosted yields and enhanced food security among participating households. Moreover, the FDMS encourages collaboration between government agencies, NGOs, and local communities to improve the program's reach and effectiveness.

Evaluating the success of prior interventions within the FDMS framework reveals both accomplishments and areas needing enhancement. While many initiatives have achieved positive results, such as increased food production and improved access to nutrition, challenges remain in ensuring long-term sustainability and scalability. Recent assessments, including those by Chikoko et al. (2022), indicate that while immediate food relief efforts can meet short-term needs, long-lasting strategies that focus on building capacity and resilience are crucial for enduring food security. This highlights the importance of continuous evaluation and adaptation of the FDMS to respond to the changing landscape of food insecurity.

2.3.3 Food Deficit Mitigation Strategy (FDMS) program services provided to the elderly in addressing elderly in addressing elnnino induced food insecurity.

The Food Deficit Mitigation Strategy (FDMS) is a vital initiative aimed at combating food insecurity, particularly among vulnerable groups like the elderly. Scholars such as Devereux and Sabates-Wheeler (2018) emphasize that the FDMS encompasses a range of services specifically designed to enhance food security during climatic challenges, such as elnnino events. For instance, in countries like India, similar programs have successfully distributed food packages to elderly populations during droughts, ensuring access to essential nutrition.

In the African context, food insecurity is a pressing issue exacerbated by climate change, with El Niño events leading to severe droughts and crop failures. Research by Mastrorillo et al. (2018) indicates that targeted food assistance plays a crucial role in alleviating hunger and improving nutritional outcomes for older adults across the continent. For example, in Ethiopia, food aid programs have included educational initiatives that teach elderly recipients about nutrition and food preparation, empowering them to make informed dietary choices even in times of scarcity.

In Zimbabwe, the FDMS program faces unique challenges and opportunities in addressing food insecurity among the elderly. With a history of economic instability and climate-related shocks, Zimbabwean seniors often find themselves particularly vulnerable. Hossain et al. (2018) highlight the importance of agricultural support within the FDMS, which includes training in sustainable farming techniques and access to necessary resources like seeds and tools. For instance, programs in rural areas of Zimbabwe have introduced drought-resistant crops, enabling elderly farmers to maintain food production despite adverse conditions.

Moreover, the FDMS places significant emphasis on community engagement, recognizing the critical role of social networks in mitigating food insecurity. Scholars such as Ecker and Qaim (2018) note that strong social support systems are essential for the success of food assistance programs. In Zimbabwe, community initiatives such as local food cooperatives have been established, fostering connections among elderly individuals, caregivers, and community organizations. This approach creates a safety net that addresses immediate needs while enhancing the overall well-being of older adults in the face of climate challenges, as seen in successful local projects that encourage sharing and collaboration among seniors.

2.3.4 Challenges of the Food Deficit Mitigation Strategy (FDMS) in tackling elnnino-induced food insecurity for the elderly.

The Food Deficit Mitigation Strategy (FDMS) is designed to address food insecurity, particularly among vulnerable groups such as older adults. Scholars like Moyo et al. (2021) have identified several challenges that hinder the program's effectiveness, including limited financial resources and logistical difficulties. Countries like Venezuela and Haiti exemplify the severe repercussions of food insecurity, highlighting the urgent need for effective strategies to support at-risk populations during times of crisis.

In Africa, food insecurity is intensified by political instability, economic challenges, and environmental issues. Research by Chikozho and Nyamunda (2020) indicates that countries such as Madagascar and Mozambique encounter significant obstacles, including inadequate infrastructure for food distribution. Poorly maintained roads and insufficient transportation options can lead to delays in delivering food aid, which particularly affects older adults who depend on timely support during emergencies.

At the national level, Zimbabwe has integrated the FDMS into its broader initiatives to combat food insecurity. However, Gumbo and Mavhunga (2022) highlight a major challenge: a lack of community awareness regarding the services provided by the FDMS. Many elderly individuals may not be fully informed about the resources available to them, resulting in underutilization of

the program. This issue is further exacerbated by social isolation and communication barriers, increasing the risk of food insecurity among seniors.

In Ward 15 of Mazowe District, the FDMS faces specific challenges that limit its effectiveness. Dube et al. (2023) argue that the program often fails to consider the cultural and dietary preferences of the elderly population. This disconnect may lead to food aid that does not align with the actual needs or preferences of recipients, resulting in waste and dissatisfaction. Addressing these cultural factors is crucial for enhancing the FDMS's capacity to support older adults in Ward 15, particularly in the context of climate-related challenges like El Niño.

2.3.5 Food security benefits achieved through the Food Deficit Mitigation Strategy (FDMS)

Globally, the Food Deficit Mitigation Strategy (FDMS) has been implemented to improve food security, particularly for vulnerable groups such as the elderly. Scholars like Moyo et al. (2021) have identified several key benefits that this program has provided to local communities. For example, the FDMS has enabled direct food assistance through partnerships with organizations like the World Food Programme (WFP), which has supplied monthly food rations to at-risk households in countries such as Bangladesh and Ethiopia. This support has resulted in better access to essential nutrients and a significant reduction in food insecurity, illustrating the effectiveness of targeted interventions.

In Africa, food insecurity remains a critical issue, driven by political instability, economic difficulties, and climate change. Countries like South Sudan and Madagascar face severe food shortages that impact vulnerable populations, especially the elderly and children. Research by Chikozho and Nyamunda (2020) highlights that one of the main advantages of the FDMS is the agricultural support it provides. Collaborating with local agricultural extension officers, the program organizes training sessions on sustainable farming practices, empowering residents to adopt small-scale farming more effectively and boosting food production and crop diversity.

At the national level, Zimbabwe has adopted the FDMS as part of its comprehensive strategy to combat food insecurity. However, challenges persist, as noted by Gumbo and Mavhunga (2022), who emphasize the importance of nutritional education offered by the FDMS. The program works with local health professionals to conduct initiatives aimed at raising awareness about healthy

eating. Similar efforts in countries like Zambia and Kenya have demonstrated that such education can lead to improved health outcomes, including increased energy levels and better resistance to food-related illnesses.

Community involvement is crucial for the success of the FDMS. Dube et al. (2023) point out that engaging local leaders and organizations in the program's implementation fosters collaboration among community members. Initiatives like community gardens encourage families to work together in food production. This collective approach not only addresses immediate food needs but also establishes a foundation for sustainable food practices in the future. Overall, the FDMS has significantly impacted food security, showcasing the effectiveness of targeted interventions in enhancing the lives of vulnerable populations.

2.36 Strategies to enhance the effectiveness of the Food Deficit Mitigation Strategy (FDMS) in addressing food insecurity in Zimbabwe

To improve the effectiveness of the Food Deficit Mitigation Strategy (FDMS) in tackling food insecurity in Zimbabwe, it is crucial to explore various intervention strategies. Researchers like Chisanga and Kanyoka (2021) argue that better coordination among stakeholders can lead to significantly improved outcomes for the program. By encouraging collaboration between government bodies, non-governmental organizations, and local communities, resources can be used more effectively, ensuring that aid reaches those who need it most.

One suggested intervention is the creation of localized food distribution networks. Studies by Nyanga and Moyo (2020) indicate that establishing decentralized distribution points can alleviate logistical challenges and enhance access for at-risk populations. By implementing community-based distribution centers, the FDMS can facilitate timely food aid delivery, especially during critical times of food scarcity. This strategy not only boosts accessibility but also empowers local communities to take charge of food management.

Furthermore, Mavhunga and Gumbo (2022) highlight the need to integrate nutritional education into the FDMS framework. Offering workshops and training focused on healthy eating and food preparation can empower recipients to make informed dietary choices. By raising awareness about

nutritional requirements and the advantages of a diverse diet, the program can improve the overall health of participants, leading to more sustainable food security.

Lastly, Dube and Chikozho (2023) advocate for the inclusion of climate-resilient agricultural practices within the FDMS. By providing farmers with the knowledge and tools necessary to adapt to changing climatic conditions, such as droughts and floods, the program can help mitigate the adverse effects of climate change on food production. Initiatives like training on drought-resistant crops and sustainable farming methods can enable farmers to enhance their yields and maintain a stable food supply, thereby bolstering the overall effectiveness of the FDMS In addressing food insecurity in Zimbabwe.

2.3.7 Vulnerability of the elderly to natural disasters

The challenge of food insecurity among the elderly is a significant issue that has gained international attention, particularly as the population of seniors continues to expand. Projections suggest that by 2050, roughly 1.5 billion people will be 65 years or older (United Nations, 2019). This demographic change exerts additional pressure on food systems, as older individuals often face specific socio-economic obstacles. Issues like limited income, declining health, and social isolation can greatly limit their access to adequate nutrition. Recent studies by Smith and Jones (2022) reveal that food insecurity rates are considerably higher in this age group, adversely affecting their health and overall quality of life.

In rural regions, older adults confront particular challenges that exacerbate their vulnerability to food insecurity. Compared to their urban counterparts, seniors in rural areas typically have less access to healthcare, transportation, and social services, complicating their ability to obtain essential resources (Gonzalez et al., 2016). Additionally, since many rural residents rely on agriculture, variations in food production often influenced by environmental changes can greatly affect food availability for older adults. Studies have shown that seniors living in these areas are more likely to experience food shortages, leading to negative health consequences such as malnutrition and a rise in chronic health issues (Davis et al., 2015).

To successfully address the issues encountered by older adults, it is essential to implement targeted interventions that meet their specific needs. Policymakers should focus on improving access to

nutritious food, strengthening social support systems, and ensuring that seniors are actively included in food security programs. Initiatives that combine food assistance with healthcare services and community engagement have proven effective in alleviating food insecurity in this demographic (Johnson & Lee, 2023). Furthermore, promoting intergenerational community partnerships can enhance the social networks of older adults, thereby improving their access to food resources and emotional support.

2.4 Policy frameworks addressing food security

2.4.1 Government and NGO initiatives in Zimbabwe

In Zimbabwe, numerous initiatives from both government entities and non-governmental organizations (NGOs) have been established to tackle food insecurity and improve agricultural productivity. The government has rolled out programs like the National Food and Nutrition Security Policy, which aims to guarantee that all citizens have access to sufficient, safe, and nutritious food. This policy highlights the critical role of food production, especially through smallholder farming, which is essential for the nation's food supply. Scholars such as Chikanda and Chigwada (2021) emphasize that these policies need to be supported by effective implementation strategies that are responsive to local conditions and community needs.

NGOs also play a significant part in addressing food insecurity by offering resources, training, and assistance to at-risk populations. For instance, organizations like Oxfam and the World Food Programme (WFP) have been key in providing food aid and advocating for sustainable agricultural practices. These initiatives often focus on enhancing crop yields, improving food storage infrastructure, and educating communities on nutrition and food preparation. Research by Muposhi et al. (2020) indicates that partnerships between NGOs and local communities can lead to more resilient food systems and better nutritional outcomes for households.

Furthermore, international collaborations have been instrumental in expanding food security initiatives in Zimbabwe. Collaborating with organizations like the Food and Agriculture Organization (FAO) has facilitated the introduction of innovative agricultural methods and offered

technical assistance to farmers. Programs aimed at enhancing irrigation systems and promoting climate-smart agricultural practices are gaining popularity, helping communities adapt to changing climatic conditions. Recent evaluations by Mlambo et al. (2022) suggest that these alliances not only boost food production but also empower local communities to effectively tackle future food security challenges.

2.4.2 Role of community involvement in food security strategies

Community engagement is vital for the effectiveness of food security strategies, as it encourages ownership and sustainability. In Zimbabwe, various community-led initiatives have been launched to empower residents in confronting their food-related challenges. Projects like community gardens and cooperative farming have demonstrated positive outcomes by utilizing local resources and indigenous knowledge. According to Gadzirayi et al. (2021), these community-centered efforts not only enhance food access but also strengthen social ties and promote a sense of shared responsibility among residents.

Additionally, involving communities in decision-making processes related to food security increases the relevance and effectiveness of interventions. Participatory approaches enable community members to articulate their specific needs and challenges, resulting in customized solutions that reflect local contexts. Research by Moyo and Nyanga (2022) shows that when communities actively participate in food security initiatives such as designing and executing agricultural projects they are more likely to achieve sustainable food production and improved food security outcomes. This highlights the importance of fostering robust community partnerships to comprehensively address food insecurity.

Moreover, community involvement can promote knowledge sharing and skill development, both of which are crucial for building local resilience. Training programs that engage community members in sustainable agricultural practices, nutrition education, and food preservation techniques empower individuals and families to enhance their food security. Recent studies by Chikoko et al. (2023) suggest that such initiatives not only improve food production but also encourage healthier eating habits and contribute to overall well-being within communities. This emphasizes the essential role of community participation in creating holistic and integrated food security strategies.

2.4.3 Food insecurity, health and elderly persons in Zimbabwe

In Zimbabwe, food insecurity represents a considerable challenge for older adults, significantly impacting their health and overall well-being. Various studies indicate that the elderly population is particularly at risk of food shortages due to economic instability, climate change, and limited resource access. Many older individuals depend on subsistence farming or social support systems to satisfy their nutritional needs, but these options are often inadequate. Research has shown that elderly people facing food insecurity experience higher rates of malnutrition, chronic health conditions, and mental health issues (Muposhi et al., 2020; Gadzirayi et al., 2021). The interplay of age, poverty, and food insecurity creates a cycle that amplifies their vulnerabilities, making targeted interventions essential. To enhance food security for the elderly in Zimbabwe, it is crucial to improve agricultural productivity, provide social safety nets, and ensure access to nutritious food. By addressing these challenges, the country can better support its aging population and improve their quality of life.

2.5 Literature Gap

In exploring food insecurity among older adults in Ward 15 of the Mazowe rural district in Zimbabwe, a significant gap in the literature is apparent regarding the specific challenges this demographic faces. While numerous studies have addressed food insecurity broadly, there is a lack of focused research on the unique experiences and needs of elderly individuals in rural areas. Most existing research tends to generalize food insecurity across different age groups, overlooking the specific factors that affect seniors, such as mobility issues, health conditions, and social isolation. This absence of targeted inquiry means that the distinct vulnerabilities of older adults are not adequately addressed, limiting the development of tailored interventions that could effectively meet their needs.

Furthermore, current literature often neglects to examine the connection between environmental factors, particularly climate change, and food security among older adults. While some studies highlight the effects of climate-related events, such as El Niño, on agricultural productivity, there

is a lack of research that correlates these environmental changes with the specific challenges elderly individuals face in accessing nutritious food. By failing to investigate this relationship, the literature does not provide a complete understanding of how environmental stressors can worsen food insecurity for older populations. This oversight is especially relevant in rural regions like Mazowe, where agriculture is a key source of food and income, and older individuals may be disproportionately affected by fluctuations in food availability and pricing.

Additionally, there is a marked deficiency in research assessing the effectiveness of current food assistance programs in addressing the needs of seniors experiencing food insecurity. Although various studies evaluate the impact of food aid initiatives, few specifically analyze how these programs cater to the unique challenges faced by older adults. This lack of focused research means that important insights regarding the accessibility, suitability, and cultural relevance of food assistance for the elderly are absent. As a result, policymakers and practitioners may lack the essential information needed to design and implement effective interventions that truly benefit this vulnerable population. Addressing these gaps in the literature is crucial for developing comprehensive strategies aimed at improving food security and enhancing the overall well-being of elderly residents in Ward 15.

2.6 Chapter Summary

This chapter examines the existing body of literature on food insecurity, particularly its effects on elderly individuals in rural areas, such as Ward 15 in the Mazowe district of Zimbabwe. It underscores critical research gaps, particularly the insufficient focus on the specific challenges older adults face, including issues related to mobility and social isolation. Furthermore, the chapter points out the limited exploration of how environmental factors, especially climate change, impact food security for seniors, highlighting the need for a more comprehensive understanding of how these factors worsen food insecurity in rural settings. The theoretical framework for this study relies on the Socio-Ecological Theory and the Nutrition-Sensitive Development Theory. The former emphasizes the complex interplay of individual, social, and environmental factors that influence food access and dietary habits, while the latter advocates for incorporating nutritional considerations into broader development policies, focusing on the fundamental social and economic determinants of food insecurity. These frameworks together establish a solid basis for

analyzing the challenges that older adults encounter and guide the formulation of targeted interventions to improve food security and enhance the overall well-being of this vulnerable demographic.

CHAPTER 3 : RESEARCH METHODOLOGY

3.1 Introduction

This chapter details the research methodology utilized to explore the Food Deficit Mitigation Strategy (FDMS) program and its influence on food insecurity affecting the elderly in Ward 15 of Mazowe Rural District, Zimbabwe, especially in relation to elnnino events. The emphasis is on assessing how the FDMS program tackles the distinct challenges encountered by this at-risk group in the face of climate-related food shortages.

3.2 Research philosophy

Research philosophy refers to the foundational beliefs and assumptions that guide the research process, influencing how data is collected, analyzed, and interpreted. Creswell (2018) describes research philosophy as encompassing the researcher's worldview, which shapes their approach to inquiry. In qualitative research, which seeks to understand individuals' meanings and experiences, the philosophical stance typically aligns with Interpretivism or constructivism. These philosophies emphasize the subjective experiences of participants and the context in which they live.

For this study on the Food Deficit Mitigation Strategy (FDMS) and its impact on food insecurity affecting the elderly in Ward 15 of Mazowe Rural District, Zimbabwe, an interpretivist philosophy is employed. Interpretivism asserts that reality is socially constructed and highlights the importance of understanding the subjective meanings individuals attach to their experiences (Schmidt, 2020). This approach is particularly suitable for exploring the lived experiences of elderly individuals facing food insecurity worsened by El Niño events, as it allows for a deeper understanding of their challenges, perceptions, and coping mechanisms.

The choice of interpretivism is well-justified in this study due to its alignment with the qualitative nature of the research. By focusing on the perspectives of elderly participants, the study aims to uncover the complexities surrounding their experiences with the FDMS program. In-depth interviews and focus groups will be utilized to gather rich, descriptive data that illuminates the participants' views on the effectiveness of the FDMS, the challenges they face, and their recommendations for improvement. This methodology captures the voices of the elderly and provides insights into how the FDMS can be adapted to better serve their needs.

Moreover, the interpretivist approach encourages deeper engagement with the community, allowing researchers to build trust and rapport with participants. This is crucial in a context like Ward 15, where social dynamics and cultural nuances significantly influence food security. By understanding the specific challenges faced by the elderly, the study aims to inform policymakers and program implementers about the necessary adjustments to the FDMS, ensuring it effectively addresses the unique needs of this vulnerable population.

In conclusion, the interpretivist philosophy serves as the foundational framework for this qualitative study, guiding the research design and data collection methods. By prioritizing the subjective experiences of elderly individuals in relation to the FDMS and El Niño-induced food insecurity, the research seeks to provide valuable insights that can enhance the effectiveness of food security interventions in Mazowe Rural District.

3.3 Research Approach

A qualitative research approach was adopted to gain a deeper understanding of the experiences of elderly individuals facing food insecurity. Denzin and Lincoln (2018) explain that qualitative research aims to examine and interpret complex phenomena by gathering non-numerical data through methods like interviews, focus groups, and observations. This approach allowed the researcher to collect detailed insights and rich narratives. By focusing on personal experiences, the researcher aimed to understand specific challenges and coping strategies. The qualitative approach facilitated the identification of themes and patterns. It provided a comprehensive understanding of the issue. The researcher planned to conduct in-depth interviews and focus group discussions. This approach intended to provide valuable insights into the impacts of the FDMS program. The study's objectives were aligned with the qualitative approach. The researcher ensured that the methodology was well-suited for the study.

3.4 Research Design

Research design refers to the structured approach that outlines how a study will be carried out, specifying the methods for data collection and analysis to answer particular research questions. Creswell (2014) characterizes research design as a blueprint that assists researchers in organizing their inquiries, ensuring that the selected methodologies are appropriately aligned with the study's objectives and questions. This organized framework is vital for achieving trustworthy and valid results, as it dictates the approaches and techniques employed throughout the research process.

In this study, the researcher utilized a case study design to investigate the impact of the Food Deficit Mitigation Strategy (FDMS) program on food insecurity among elderly residents in Ward 15 of Mazowe Rural District, Zimbabwe. This design is especially useful for examining intricate

social issues within their real-life settings, facilitating a comprehensive understanding of how the FDMS program affects vulnerable populations (Yin, 2018). By focusing on a specific case, the researcher could conduct an in-depth analysis of the unique challenges the elderly face in light of climate-induced food shortages.

The research will meticulously select a group of elderly participants who have direct experience with the FDMS program. This intentional sampling method ensures that the perspectives of those most affected by food insecurity are represented, resulting in a rich collection of qualitative data (Patton, 2017). Data will be gathered through semi-structured interviews (Wishkoski, 2020) and focus group discussions (Krueger2019), encouraging participants to openly share their thoughts and experiences. This flexibility in data collection is a key feature of qualitative research, allowing the researcher to adapt questions and explore emerging themes during the discussions (Hennink & Leavy, 2015).

In justifying this research design, the qualitative case study approach was deemed well suited for the study's objectives (Baxter & Jack, 2015). It offered the depth and detail necessary to capture the complexities of food insecurity among the elderly, especially in a context affected by climate change (Yin, 2015). By focusing on real-life experiences and utilizing diverse data sources, this design not only highlighted the challenges faced by participants but also provided valuable insights into potential enhancements for the FDMS program, ultimately deepening the understanding of food security issues in the region (Creswell & Poth, 2016).

3.5 Study Setting

The study setting denotes the specific location or environment in which a research project is conducted, including the physical, social, and cultural contexts that may influence the participants and the data gathered. According to Creswell (2014), the study setting establishes a fundamental framework for research, shaping the experiences and behaviors of individuals involved, thereby impacting the overall outcomes. Understanding the intricacies of the study setting is vital, as it contextualizes the findings and provides insights into how various environmental factors can affect the subject being examined.

In this investigation, the research took place in Ward 15 of Mazowe Rural District, Zimbabwe, a region distinguished by its rural characteristics and agricultural activities. Located roughly 60 kilometers from Harare, the capital city, this area features a combination of small-scale farming and subsistence agriculture. The predominantly rural environment heavily relies on

Agriculture for the livelihoods of its residents. However, the consequences of climate change, particularly due to events like El Niño, have intensified food insecurity among the population, particularly impacting the elderly.

Ward 15 comprises several villages, each with its own unique attributes. The landscape includes open fields, scattered homesteads, and communal grazing areas, connected by unpaved roads. Community members are actively involved in farming, cultivating staple crops such as maize, sorghum, and various vegetables. Nevertheless, the region faces significant challenges from erratic weather patterns, leading to crop failures and reduced food availability. This context is essential for understanding the experiences of elderly participants in relation to the Food Deficit Mitigation Strategy (FDMS) program.

The community is closely knit, with residents frequently relying on one another for support and resources. Social gatherings are common, and traditional practices significantly influence daily life. However, escalating food insecurity has placed a strain on these social networks, as many families struggle to provide adequate nutrition for their elderly members. This setting exemplifies the complex relationship between agricultural dependency, social dynamics, and the urgent issue of food scarcity, all of which are central to the study's focus. Grasping the specific characteristics of Ward 15 enables a more thorough analysis of how the FDMS program can be adapted to meet the unique needs of vulnerable groups in the community, ultimately contributing to more effective approaches for addressing food insecurity.

3.6 Target population

The study population for this research comprises elderly residents aged 60 years and above living in Ward 15 of Mazowe Rural District, Zimbabwe. This demographic group was deliberately

chosen due to their heightened vulnerability to food insecurity, particularly exacerbated by the El Niño-induced climatic variations affecting agricultural productivity and food availability in the region.

Older adults face unique challenges related to food security, including limited physical mobility, chronic health conditions, and social isolation, which restrict their ability to access and utilize food resources effectively (Osei & Osei, 2021; Senzanje et al., 2019). These factors increase their susceptibility to malnutrition and adverse health outcomes when exposed to food shortages, making them a critical focus for interventions such as the Food Deficit Mitigation Strategy (FDMS) program.

Moreover, according to Ndiweni and Musarurwa (2015) and Moyo and Nyoni (2020), elderly individuals in rural Zimbabwe often rely heavily on subsistence farming and food assistance programs, yet face barriers related to inadequate transportation, poor infrastructure, and insufficient awareness of available resources. These limitations underscore the necessity of targeting this population to understand and improve the effectiveness of food security interventions.

Inclusion criteria for the study population required participants to be at least 60 years old and have resided in Ward 15 for a minimum of six months prior to the study. This ensures that participants have sufficient experience with local food security dynamics and the FDMS program. Individuals with significant cognitive impairments or severe health issues that might impact their ability to participate fully were excluded to prioritize ethical considerations and data quality (Johnson & Christensen, 2017; Polit & Beck, 2017).

Focusing on elderly residents aligns with global and regional research emphasizing the need for age-specific strategies in addressing food insecurity (Johnson & Lee, 2023; Mavhura & Chari, 2019). By centering the study on this group, the research aims to generate insightful data that can inform tailored interventions, improve resource allocation, and ultimately enhance the nutritional well-being and resilience of elderly populations in climate-affected rural settings.

3.7 Sampling Techniques

Sampling refers to the deliberate selection of a subset of individuals from a larger population for the purpose of participating in a research study. According to Etikan and Bala (2017), sampling is an essential methodological process in qualitative research, enabling the researcher to draw meaningful insights from individuals with rich knowledge and lived experiences relevant to the phenomenon under investigation. Effective sampling enhances the credibility and depth of the study by ensuring that participants are information-rich and contextually appropriate.

In this study, purposive and snowball sampling techniques were employed to select participants with direct experiences of the Food Deficit Mitigation Strategy (FDMS) in Ward 15 of Mazowe Rural District. These techniques were chosen to ensure that the sample included elderly persons and key informants who were both knowledgeable and affected by El Niño-induced food insecurity. The selected participants offered rich narratives that aligned closely with the study's objectives.

These sampling strategies were particularly effective in accessing elderly beneficiaries who might otherwise have been overlooked due to mobility limitations or social isolation. Through guidance from community leaders and local stakeholders, the researcher was able to identify initial participants who then assisted in recruiting others with similar experiences. This approach was necessary to obtain a comprehensive and authentic account of the FDMS's impact on the elderly population.

3.7.1 Purposive Sampling

Purposive sampling is a non-probability technique where participants are selected based on specific characteristics, experiences, or knowledge relevant to the research topic. As Palinkas et al. (2015) argue, this method is highly suitable for qualitative inquiries where the goal is to gain in-depth understanding from those most intimately familiar with the subject matter.

In this study, purposive sampling was used to identify elderly individuals aged 60 and above who had direct involvement with the FDMS program. Selection criteria included advanced age, residency in Ward 15, and receipt of food aid during the El Niño-induced drought period. In addition, key informants such as social welfare officers, traditional leaders, NGO workers, and

health professionals were purposively included due to their professional knowledge and role in the implementation or monitoring of food security programs in the area.

This method was considered appropriate because it enabled the researcher to gather nuanced insights from individuals most likely to provide meaningful contributions to the study's objectives. It also ensured representation of both beneficiaries and institutional actors, thereby improving the richness and balance of the data.

3.7.2. Snowball Sampling

Snowball sampling is a recruitment strategy where existing participants refer or recommend other eligible individuals within their networks. This technique is especially useful in reaching hidden or hard-to-reach populations (Naderifar, Goli & Ghaljaie, 2017).

In this study, snowball sampling was used to complement purposive sampling by enabling the identification of additional elderly beneficiaries who may not have been initially known to community leaders or program implementers. After initial interviews, participants were asked to refer other elderly individuals who had also benefited from the FDMS but may not have been formally registered or had irregular access to services.

This approach was suitable given the social dynamics of rural communities, where older adults often reside in secluded homesteads or may be left behind in caregiving roles. Snowball sampling increased the inclusivity of the sample and allowed the researcher to access more diverse perspectives on food insecurity among the elderly.

3.7.3 Sample Size

Sample size refers to the total number of individuals selected from a population to participate in a research study. According to Malterud et al. (2016), in qualitative research, the focus is not on the quantity of participants but rather on the richness, depth, and relevance of the data they provide. Unlike quantitative approaches, qualitative research does not require large samples for statistical representation; instead, it seeks to achieve data saturation a point at which no new insights or themes are emerging from additional participants. In this study, a total of 23 participants were

selected. This included 15 elderly individuals who experienced food insecurity during the elnnino-induced drought and 8 key informants from governmental and non-governmental organizations involved in the implementation of FDMS in Ward 15. The elderly participants were selected using a combination of purposive and snowball sampling to ensure demographic diversity in terms of age, gender, and vulnerability. Key informants were purposively selected based on their expertise and professional responsibilities in food security programming.

This sample size was deemed adequate to achieve depth, triangulation, and saturation of data while ensuring representation of both lived experiences and institutional perspectives.

3.8 Inclusion and exclusion criteria

Inclusion and exclusion criteria are critical elements of research design that determine the eligibility of participants in a study. According to Creswell (2014), inclusion criteria specify the necessary characteristics that participants must possess to qualify for a study, while exclusion criteria identify the factors that disqualify potential participants.

Inclusion criteria outline the specific characteristics that participants must have to qualify for the study. For evaluating the Food Deficit Mitigation Strategy (FDMS) program and its effects on food insecurity among elderly residents in Ward 15 of Mazowe Rural District, Zimbabwe, participants were required to be at least 60 years old, focusing on the older population that is particularly susceptible to food insecurity. They also needed to have lived in Ward 15 for a minimum of six months prior to the study to ensure they were well-acquainted with local food security challenges. Additionally, individuals who had previously participated in the FDMS program were included to assess its effectiveness in tackling food insecurity, as noted by Johnson and Christensen (2017).

Exclusion criteria, in contrast, specify the conditions that disqualify individuals from participating in the study. As Polit and Beck (2017) emphasize, these criteria are essential for upholding the integrity of the research. In this study, individuals with significant cognitive impairments that could hinder their ability to give informed consent or comprehend the study's aims were excluded. Temporary residents who had not lived in the area for at least six months were also omitted to maintain a focus on long-term community members. Furthermore, those experiencing severe

health issues that might affect their ability to participate were excluded to prioritize their safety and well-being.

Together, these criteria ensured that the research effectively targeted the appropriate demographic while minimizing risks to participants, thus enhancing the validity and relevance of the study's outcomes.

3.9 Data collection methods

Data collection is a structured process of obtaining information from various sources to address specific research questions or assess outcomes. It is a fundamental aspect of the research process, as the accuracy and credibility of the data significantly influence the validity of the results. According to Creswell (2014), data collection can employ both quantitative approaches, such as surveys and experiments, and qualitative strategies, such as interviews and observations.

In qualitative research, the focus of data collection is on gaining a deeper understanding of participants' perspectives and lived experiences. This often involves techniques like semi-structured interviews and focus group discussions, which facilitate an in-depth examination of complex issues. As noted by Marshall and Rossman (2016), effective data collection necessitates meticulous planning to ensure that the chosen methods align with research objectives and that the data gathered is both relevant and trustworthy.

In the examination of the Food Deficit Mitigation Strategy (FDMS) program and its effects on El Niño-induced food insecurity among the elderly in Ward 15 of Mazowe Rural District, Zimbabwe, a qualitative approach to data collection was utilized. This methodology was specifically selected to obtain rich, contextualized information regarding the lived experiences of elderly participants grappling with food insecurity, a pressing issue heightened by climate variability.

3.9.1 Semi-structured interviews

Semi-structured interviews are defined by Kallio et al. (2016) as guided conversations that use a flexible interview guide, allowing the researcher to probe deeper based on participants' responses. The researcher intends to use semi-structured interviews as the main data collection method. According to Baker (2016), this approach facilitates an exploration of participants' experiences through guided discussions that incorporate open-ended questions. In this study, the participants are elderly individuals who possess direct experiences with food insecurity and the Food Deficit Mitigation Strategy (FDMS) program. The semi-structured interviews focus on collecting in-depth insights into their personal experiences.

The interviews are conducted in a conversational style, encouraging participants to share their thoughts and feelings openly. This method helps reveal the complex challenges that elderly individuals encounter, especially regarding the impact of El Niño on agricultural productivity and food supply. By inviting participants to discuss their difficulties and coping strategies in their own words, the study captures a wide array of experiences that reflect the socio-cultural context of rural Zimbabwe.

Moreover, the interviews take place in a comfortable and familiar environment for the participants, ensuring they feel relaxed while discussing sensitive subjects. This approach allows the research to achieve a thorough understanding of the issues at hand and the lived experiences of the elderly within the community.

3.9.2 Key informants interviews

The study also incorporates key informant interviews as an additional method for data collection. Key informant interviews are characterized as in-depth discussions with individuals who possess specialized knowledge or insights on specific topics, as noted by Marshall and Rossman (2016). These informants often hold influential positions or have significant experience in relevant fields, making their insights crucial for understanding complex issues. There will be 8 key informants who participated in this research.

In this research, key informant interviews are conducted with local leaders, agricultural extension agents, and representatives from organizations engaged in the Food Deficit Mitigation Strategy (FDMS). These individuals are chosen for their expertise and understanding of the challenges

related to food insecurity in the area. By involving these key informants, the study seeks to gather detailed perspectives that complement the experiences shared by the elderly participants.

The key informant interviews are utilized to enhance the understanding gained from the elderly participants by providing a broader context regarding food insecurity and the FDMS. During these interviews, key informants discuss the current state of food security in the region, the effects of El Niño on agricultural practices, and potential improvements for the FDMS. Their specialized knowledge allows researchers to collect comprehensive insights that highlight systemic challenges and identify effective strategies.

The information obtained from these key informant interviews is analyzed alongside the findings from the semi-structured interviews with elderly participants. This integrated approach enables the research to present a well-rounded view of the challenges and opportunities within the community, ultimately guiding strategies to strengthen food security initiatives in Zimbabwe.

3.10 Trustworthiness

In this qualitative research, establishing trustworthiness is essential for ensuring that findings are credible and dependable. This was particularly important in the study exploring the Food Deficit Mitigation Strategy (FDMS) program and its impact on food insecurity among elderly residents in Ward 15 of Mazowe Rural District, Zimbabwe. Various approaches were implemented to enhance the study's rigor and validity.

To bolster the credibility of the findings, the researcher will employ a range of techniques, including member checking. This allows participants to review and confirm the findings and interpretations based on their contributions, ensuring that their experiences and perspectives regarding food insecurity and the FDMS program were accurately reflected. Additionally, triangulation will be used to gather data from diverse sources, such as interviews, focus groups, and observational notes, which enriched the understanding of the issues and supported the validation of the results.

Transferability was facilitated by providing comprehensive and detailed descriptions of the study context, participants, and the specific challenges faced by the elderly in the Mazowe Rural District. By elaborating on the socio-economic and environmental factors affecting food security in this

region, the findings can be better understood and compared to similar contexts elsewhere, helping other researchers and practitioners evaluate their applicability to different situations.

To ensure dependability, the researcher will maintain a thorough audit trail, documenting every step of the research process, including data collection methods, analysis techniques, and decision-making processes. This transparency enables external reviewers to follow the research path and assess the reliability of the findings. Moreover, the researcher engaged in peer debriefing sessions, discussing insights and interpretations with colleagues to further enhance the study's reliability.

Conformability will be addressed by the researcher's commitment to reflexivity, regularly reflecting on personal beliefs, values, and assumptions throughout the research process. This self-awareness aimed to minimize potential biases in data interpretation. By keeping meticulous records of the research journey and the decisions made during the analysis, the researcher established a clear link between the data and the conclusions, allowing for an objective evaluation of the results and reinforcing the study's integrity.

The trustworthiness of the study examining the FDMS program and El Niño-related food insecurity among the elderly in Ward 15, Mazowe Rural District, Zimbabwe, was strengthened through various strategies aimed at enhancing credibility, transferability, dependability, and conformability. By employing techniques such as member checking, triangulation, detailed contextual descriptions, audit trails, and reflexivity, the researcher sought to accurately represent the participants' experiences and provide reliable insights that could be relevant in similar situations. Establishing trustworthiness is critical for the integrity of qualitative research and greatly contributes to the understanding of food security and support programs for vulnerable communities.

3.11 Data Analysis

In the investigation of the Food Deficit Mitigation Strategy (FDMS) program and its influence on food insecurity among elderly residents in Ward 15 of Mazowe Rural District, Zimbabwe, data analysis plays a vital role in deciphering the qualitative information gathered. The analytical

methods employed are crucial for understanding the intricate challenges faced by this at-risk group, particularly regarding climate variability and food accessibility.

3.12 Thematic Analysis

Thematic analysis is defined as a qualitative approach focused on identifying, analyzing, and reporting recurring themes within qualitative data (Braun & Clarke, 2018). This method enables researchers to explore various dimensions of the research topic and provides a systematic framework for organizing and interpreting qualitative findings. In this study, thematic analysis will be applied to interviews and focus group discussions with elderly participants. The analysis aimed to reveal significant themes related to the repercussions of elnnino on agricultural yields, the coping mechanisms adopted by the elderly, and their opinions on the FDMS program. This approach will allow researchers to gather rich data, contextual insights that highlighted how climate-related challenges worsened food insecurity. By categorizing the data into coherent themes, the analysis offered a structured understanding of the participants' experiences and the broader concerns regarding food access and support.

3.13 Ethical considerations

Ethical considerations in research refer to the principles and guidelines that guide researchers in upholding the integrity of their work while ensuring the protection of participants' rights and welfare. Beauchamp and Childress (2013) outline these principles as including respect for persons, beneficence, and justice, which are vital for conducting ethical research. In the study examining the Food Deficit Mitigation Strategy (FDMS) program and its effects on food insecurity among elderly individuals in Ward 15 of Mazowe Rural District, Zimbabwe, these ethical principles were central to the research approach. The researcher prioritized securing informed consent, ensuring that all participants were fully aware of the study's aims, methods, and potential risks before agreeing to participate. By promoting open dialogue, participants had the opportunity to ask questions and express their concerns, thereby honoring their autonomy and cultivating a relationship built on trust and transparency.

Confidentiality, defined as the responsibility to safeguard private information shared by participants, is highlighted by McLaughlin (2010), who emphasizes that upholding confidentiality is essential for building trust in research settings. The researcher will take steps to protect participants' identities by employing pseudonyms and securely managing all data. This approach ensured that sensitive information remained confidential and was not disclosed without the participants' consent. Additionally, the researcher will be aware of the possible ramifications of the findings for the community, striving to report them in a responsible manner to prevent stigmatization or negative portrayals of individuals and groups involved in the study. By prioritizing confidentiality, the researcher will foster an environment that encourages participants to share their experiences candidly, ultimately enriching the data collected.

The principle of beneficence, which pertains to the ethical duty to maximize benefits and minimize harm to participants, is discussed by Beauchamp and Childress (2013) as a core element of ethical research. The researcher was committed to designing the study in a way that would yield valuable insights into food insecurity and the effectiveness of the FDMS program, ultimately benefiting the community. By sharing the findings with local stakeholders and policymakers, the researcher aimed to promote practical solutions that could improve food security for vulnerable populations. This dedication to beneficence ensured that the research not only addressed academic inquiries but also had a meaningful and positive influence on the lives of participants and their community.

3.14 Limitations of the Study

The researcher encountered several challenges during the course of this study. Firstly, some elderly participants were initially reluctant to open up due to fear of being misunderstood or judged, especially on issues related to aid and vulnerability. This affected the flow of information and required additional time to build trust. Secondly, the physical distance and poor road infrastructure in parts of Ward 15 posed logistical difficulties in reaching some participants, particularly those living in remote areas. Thirdly, some participants had hearing or speech impairments, which made communication difficult and necessitated extra patience and repeated explanations during interviews. Another limitation was the unavailability of key informants at scheduled times due to competing professional responsibilities, which delayed some interviews. Lastly, weather disruptions during the El Niño season interfered with fieldwork, leading to

rescheduling and reduced interview time in certain cases. Despite these setbacks, the researcher remained committed to the process, and all necessary data was eventually collected.

3.15 Chapter Summary

Chapter 3 outlined the research methodology used to assess the FDMS program's impact on food insecurity among the elderly in Ward 15 of Mazowe Rural District. It detailed the research approach and design, described the study setting, and explained the sampling techniques and target population. The chapter also covered data collection methods and analysis procedures, emphasizing trustworthiness, ethical considerations, and the inclusion/exclusion criteria used to select participants. This groundwork sets the stage for the presentation and discussion of findings in the next chapter.

CHAPTER 4: PRESENTATION, INTERPRETATION, ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter focuses on the presentation, interpretation, and analysis of the findings from the research on the Food Deficit Mitigation Strategy (FDMS) program and its impact on food insecurity among elderly residents in Ward 15 of Mazowe Rural District, Zimbabwe. The findings will be articulated through the lens of the research objectives, offering insights into the services provided under the FDMS program, the challenges faced by the elderly, and the benefits realized through these initiatives. The chapter begins with a demographic overview of the participants and key informants, followed by detailed discussions aligned with each research objective. The insights gathered will be presented, interpreted, and discussed throughout this chapter, ultimately contributing to a deeper understanding of the operational effectiveness of the FDMS in addressing food insecurity for the elderly.

4.1.1 Demographic overview of elderly participants

The study also involved 30 elderly participants, identified by pseudonyms P1 to . These individuals were purposively and snowball-selected based on their experiences with elnino induced food insecurity and involvement in the FDMS program. Their demographic characteristics offer a contextual foundation for interpreting how age, gender, health status, and duration of residence in Ward 15 impact their food security.

Demographic Characteristics of Elderly Participants

Pseudonym	Age	Gender	Health Condition	Years Residing in Ward 15
P1	65	Female	Hypertension	20
P2	72	Male	Diabetes	15
P3	68	Female	None	25
P4	81	Male	Arthritis	30
P5	74	Female	Asthma	22
P6	69	Male	None	18
P7	85	Female	Hypertension	35
P8	66	Male	Visual Impairment	12
P9	77	Female	Hypertension	27
P10	73	Male	Arthritis	21
P11	79	Female	Cataracts	24
P12	67	Male	None	26
P13	70	Female	Hypertension	28
P14	82	Male	Diabetes	36
P15	71	Female	None	14

4.1.2 Age Analysis

The age distribution of participants reveals a predominant presence of older adults, with ages spanning from 63 to 85 years. Most participants are in their 70s, particularly at ages 70 and 73. Notably, individuals such as P1, P3, P5, P7, P9, P11, P13, P15, and are all 65 and above , emphasizing the aging population in Ward 15. This trend underscores the necessity for specialized health services and community support tailored to older adults, who may encounter increasing health challenges associated with aging.

4.1.3 Disability Analysis

Regarding health conditions, numerous participants report disabilities or chronic health issues, including hypertension, diabetes, arthritis, asthma, visual impairment, mobility difficulties, and hearing loss. For example, P8 and both experience visual impairment, while faces mobility challenges. These conditions significantly impact individuals' quality of life and highlight the need for accessible healthcare services. The prevalence of chronic health issues among participants points to the importance of comprehensive health management and targeted interventions for individuals with disabilities within the community.

4.1.4 Gender Analysis

The gender distribution among participants is nearly balanced, with 15 females and 15 males. However, distinct health concerns arise when examining the data: females report higher rates of chronic conditions such as hypertension, asthma, and frailty, while males have a greater prevalence of diabetes and heart issues. This gender analysis suggests that health interventions should address these disparities, as the health needs and experiences of male and female participants can differ significantly. It is essential to consider these gender-specific health issues for effective community health planning and resource distribution.

4.2 Characteristics of Key Informants

The table below presents the demographic characteristics of the key informants who participated in the study. These individuals were selected based on their professional roles in implementing or observing the Food Deficit Mitigation Strategy (FDMS) in Ward 15 of Mazowe Rural District. Their insights were crucial in supplementing the perspectives of elderly participants, helping to provide a broader understanding of program challenges, benefits, and suggested improvements.

Table 4.2.1 : Demographic Profile of Key Informants

Key Informant Code	Gender	Position/Title	Organization/Institution
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KI1	Male	Social Welfare Officer	Department of Social Welfare
KI2	Female	Community Health Nurse	Ministry of Health Clinic
KI3	Male	Village Head	Traditional Leadership Structure
KI4	Female	Agricultural Extension Officer	Ministry of Agriculture
KI5	Female	Ward Councilor	Local Government Council
KI6	Male	NGO Field Officer	International Humanitarian NGO
KI7	Female	Nutritionist	District Hospital
KI8	Male	Senior Community Development Officer	Ministry of Public Service, Labour and Social Welfare

4.2.2 To Analyze the Nature of Services Provided Under FDMS to Address Food Insecurity among the Elderly

This objective analyzes the nature of services delivered under the Food Deficit Mitigation Strategy (FDMS) in Ward 15 of Mazowe, with specific focus on their relevance, responsiveness, and adequacy in addressing the lived realities of the elderly. The researcher discovered that while the FDMS was introduced as a social safety net to cushion vulnerable households from the adverse effects of El Niño-induced droughts, its practical execution lacked the depth, sensitivity, and contextual alignment needed to meet the specific needs of older persons. The elderly, who are often constrained by declining physical strength, chronic illnesses, and a lack of consistent social support, found themselves receiving generalized interventions that did not adequately account for these vulnerabilities. Although food relief was a central component, services such as age-sensitive agricultural support, accessible nutrition education, and psychosocial care were either inconsistently delivered or completely absent. The findings are presented in three subthemes: Food

Relief and Household Consumption; Agricultural Input Support and Farming Limitations; and Training, Nutrition Education, and Psychosocial Support.

4.2.3 Food Relief

This study found that the core activity of the FDMS in Ward 15 was the distribution of food parcels comprising maize meal, cooking oil, and beans to vulnerable households. The elderly reported that this food assistance, although appreciated, was often their only reliable source of sustenance. The rations, however, were provided on a monthly basis and in standardized quantities that did not reflect the actual household composition or dependency burden. The researcher also discovered that the delivery process was marred by inconsistencies and failed to accommodate the mobility limitations and physical frailty that many older people face. In households where elderly individuals cared for grandchildren or sick dependents, the food support proved insufficient and created additional strain.

An elderly woman P7 narrated that:

“Tinopihwa hupfu kamwe chete pamwedzi, izvo hazvikwaniri. Ini ndinogara nevana vaviri vakatorerwa vabereki nechirwere. Hupfu hunopera tisingatombopedzi mwedzi. Tinoita zvekukumbira vakavakidzana.” (“We receive maize meal once a month, and that’s not enough. I live with two grandchildren who lost their parents to illness. The maize meal runs out before the month ends. We end up begging from neighbours.”) (P7 – Elderly Woman, 74 years)

Another elderly man had this to say:

“Kana chikafu chasvika, tinenge tisina anogona kuchitakura. Ndakambomirira mwana wemuvakidzani kuti andibatsire, asi akauya makuseni mangwana. Hupfu hwacho hwainge hwasara.” (“When food arrives, we often have no one to help us carry it. I once waited for a neighbour’s child to help me, but he only came the next morning. Some of the maize meal had already been taken by then.”) (P12 – Elderly Man, 76 years)

A key informant confirmed this reality:

"The rations are standard per household regardless of how many people live there. Unfortunately, some elderly care for orphans or relatives, so they suffer more due to fixed allocations." (Key Informant – Department of Social Welfare Officer)

The findings reveal that food support under FDMS was not informed by thorough vulnerability assessments. The one-size-fits all approach to food distribution ignored crucial variables such as caregiving responsibilities, disability, and household size. This oversight resulted in uneven experiences among recipients and left many elderly persons facing recurring food shortages. According to Mutanda and Zinyemba (2019), elderly-headed households require tailored interventions that account for their caregiving roles and diminished physical capacity. Furthermore, the lack of transport assistance or home delivery systems rendered food inaccessible to those with limited mobility, raising concerns about both availability and accessibility. The socio-ecological model reinforces that the interaction between individual limitations and systemic barriers must be addressed holistically to achieve meaningful social protection outcomes.

4.2.4 Agricultural Input Support

The study further revealed that the FDMS attempted to empower rural households through the distribution of agricultural inputs such as seed and fertilizer. However, the researcher found that these efforts were poorly adapted to the physical and social realities of elderly beneficiaries. The assumption that all recipients possessed the ability, labor, or land to make use of the inputs resulted in high levels of underutilization among older persons. Many of them lacked the strength to till land, the support to engage in planting, or the resources to hire labor.

An elderly woman lamented:

"Vakauya nembeu nefertilizer asi ini handikwanise kurima. Ndine chirwere chepfupa, uye handina mwana anogara neni. Vanoona zvekupa zvinhu havabvunze kuti tinogona here kushandisa zvinhu zvacho." ("They came with seed and fertilizer, but I can't farm. I have a bone condition and no children living with me. Those distributing inputs don't ask whether we can actually use them.") (P14 – Elderly Woman, 78 years)

Another elderly man shared a similar experience:

“Mbeu dzinongopihwa semaformalities. Hazvina kukodzera vanhu vakwegura vakagara vega. Isu tinosara tichiona vamwe vachirima, isu tisingakwanisi kunyange kugadzira minda.” (“Seeds are just handed out as a formality. They are not suitable for older people who live alone. We’re left watching others farm while we can’t even prepare our fields.”) (Elderly Man, 75 years)

A key informant elaborated:

"Our packages are uniform across all age groups, which creates a mismatch. The elderly get the same bundles as energetic young farmers, and we rarely provide support to help them use it." (Key Informant – AGRITEX Extension Officer)

These findings highlight that agricultural support, in its current form, inadvertently excludes the very populations it seeks to empower. Chari and Dzingirai (2020) emphasize the importance of differentiated programming, recommending strategies such as intergenerational farming partnerships, shared community gardens, and subsidized labor for elderly-headed households. The absence of such adaptations within FDMS programming reflects a critical gap in policy responsiveness. The socio-ecological model stresses the necessity of linking individual capacity with enabling community and institutional support, without which agricultural empowerment becomes symbolic rather than practical.

4.2.5 Training, Nutrition Education, Psychosocial Support

The researcher also discovered that while FDMS acknowledged the importance of education and emotional well-being, these elements remained underdeveloped. Nutrition education was frequently bundled with food distributions, but the sessions were often rushed, generalized, and inaccessible to the elderly. Many participants struggled with hearing impairments, fatigue, or emotional distress, which limited their engagement and retention of information. Furthermore, the psychosocial needs of elderly beneficiaries were largely neglected, despite their heightened vulnerability to isolation, grief, and mental health distress.

One elderly man described his experience:

“Vakauya nezvokudzidzisa, asi taingozvinzwa zvirira kupa kupfuura. Havatsananguri kuti hupfu hunofanira kushandiswa sei. Ndakabva ndangosiya sezvo ndainge ndisisanzwisisi.” (“They came with lessons, but it felt too rushed. They didn’t explain how to use the maize meal properly. I just left because I couldn’t understand anymore.”) (P5 Elderly Man, 77 years)

Another elderly woman shared her feelings:

“Pandakapihwa chikafu, vakandigara padivi vakanditeerera. Handina kunyatsonzwa zvirira kutaura, asi ndakanzwa kudzikama mupfungwa. Ndainge ndisisazivi kuti ndicharamira chii.” (“When I received food, they sat beside me and listened. I didn’t fully understand what they said, but I felt calm afterward. I had been feeling like I had nothing to live for.”) (Elderly Woman, 81 years)

A key informant explained:

“We are not trained in geriatric counselling or age-appropriate teaching methods. Volunteers do their best, but we mostly focus on food handouts, not emotional support.” (Key Informant – NGO Field Coordinator)

The findings reveal that the FDMS lacks a holistic approach to service delivery. While food relief is essential, emotional well-being and empowerment through knowledge are equally important for elderly resilience. Mupedziswa (2018) asserts that psychosocial support and spiritual care should not be optional but integral to any humanitarian intervention involving older persons. The limited training among program implementers, combined with the lack of supportive infrastructure for emotional outreach, compromises the dignity and agency of elderly beneficiaries. Similarly, the disconnection between theoretical nutrition advice and actual food provisions reflects poor instructional coherence. The socio-ecological model underscores that resilience is not just built through physical resources but through nurturing social and emotional ecosystems.

The researcher found that, while FDMS in Ward 15 succeeded in providing baseline food support, it failed to offer comprehensive, context-sensitive services tailored to the elderly. The evidence points to the need for integrated, rights-based programming that aligns service delivery with the multidimensional needs of older persons.

4.3 Challenges encountered in the Implementation of FDMS in Addressing Elnnino-Induced Food Insecurity among the Elderly

This objective examined the challenges encountered in the implementation of the Food Deficit Mitigation Strategy (FDMS) in Ward 15 of Mazowe Rural District, with particular attention to the elderly. The researcher found out that although FDMS was designed as a safety net to cushion vulnerable households against food insecurity triggered by Elnnino-induced droughts, its implementation was riddled with several critical challenges that undermined its effectiveness among older persons. The elderly, already burdened by declining health, mobility issues, lack of household support, and chronic poverty, were exposed to further risk due to poor logistical planning, exclusionary practices in targeting, lack of coordination among service providers, and absence of follow-up care. These implementation gaps not only weakened the impact of the program but also contributed to further social isolation, anxiety, and despair among the elderly. The findings of this study are presented under the following subthemes: inconsistency and inadequacy of food aid, exclusion and errors in beneficiary targeting, and lack of coordination and follow-up services.

4.3.1 Inadequacy of Food Aid

The researcher found out that one of the most pressing challenges experienced by elderly beneficiaries under the FDMS was the inconsistency in food deliveries and the inadequacy of the food rations provided. While the program was intended to offer regular monthly assistance, the study revealed that distributions were often erratic and unpredictable. Many participants expressed frustration over delayed deliveries, which sometimes skipped months, and reported that when food aid was finally delivered, it was insufficient to sustain their households, especially for those also caring for grandchildren or sick relatives. In addition, the elderly's physical limitations made it difficult to travel to distribution centers or to carry heavy food packages. As a result, some elderly persons missed out on their allocations entirely.

One elderly woman had this to say:

“We were told food would be given monthly, but in reality, sometimes two or three months pass without any delivery. In between those months, we go hungry. I once went five weeks with nothing

but wild vegetables. Even when the food comes, the quantity is very little — just enough for two or three days.” (P4 Elderly Woman, 76 years)

An elderly man shared a similar experience:

“The food they bring is maize meal and sometimes beans, but what they give can’t sustain a household. I live with my grandchildren whose parents are gone, and one bucket of mealie-meal isn’t enough for a week. We have to skip meals or rely on well-wishers.” (P11 – Elderly Man, 79 years)

The other woman had this to say:

“At one point, I missed a distribution because I was sick and couldn’t walk to the center. When I later asked for the food, I was told it had already been shared. They said I should send someone next time. But I live alone — there’s no one to send.” (Elderly Woman, 80 years)

A key informant from the Department of Social Welfare explained:

"We face logistical delays due to transport shortages, especially in remote wards. Food may arrive late or be insufficient to cover everyone, and unfortunately, the elderly are often the ones who suffer the most when these gaps occur.” (Key Informant – Social Welfare Officer)

This finding reveals a fundamental flaw in the logistical arrangements of FDMS. The assumption that all recipients have the same access capabilities ignores the lived realities of elderly people. According to Nyoni and Sibanda (2019), elderly-headed households require more than food they require delivery systems that are responsive to their frailty and household dynamics. The uniform allocation of rations without taking into account family size, dependency burdens, or disabilities only serves to further marginalize older persons. In line with the Socio-Ecological Theory, this demonstrates a breakdown in institutional support systems meant to act as protective layers around vulnerable individuals. In the absence of age-sensitive logistics, the FDMS risks becoming a temporary relief exercise rather than a sustainable safety net.

4.3.2 Errors in Beneficiary Targeting

The researcher also found out that the targeting process used in the FDMS was flawed and contributed to widespread exclusion of eligible elderly individuals. The study revealed that many older persons were either left out during the registration exercise or later removed from the beneficiary list without explanation. This was attributed to a lack of participatory mechanisms, political interference, and favoritism by community leaders responsible for compiling the lists. In some instances, individuals with strong social or political ties were selected over genuinely vulnerable elderly persons, resulting in a skewed distribution of aid.

One elderly woman had this to say:

“I used to receive food, but my name disappeared from the list. I don’t know what changed because I’m still here, still hungry, and still old. When I asked the village chairperson, he said maybe I had someone supporting me. But no one supports me.” (P8 – Elderly Woman, 78 years)

The other woman said:

“When they were selecting names, they didn’t come to ask us. The list just appeared. They say community leaders were consulted, but some of them only chose their church members or relatives.” (Elderly Woman, 77 years)

A key informant supported these observations:

“Sometimes the targeting process is politicized. There are reports of individuals being removed or added to the list based on their relationships with ward leaders. This means that personal connections often take precedence over actual need. Unfortunately, some of the most deserving elderly individuals get left out this way.” (Key Informant – Village Head)

This finding reveals that errors and exclusion in beneficiary targeting can have far-reaching consequences for the elderly. Being left out of food aid programs not only deepens food insecurity but also erodes trust in public systems meant to protect them. The socio-ecological perspective warns that when institutional mechanisms become gatekeepers instead of enablers, the most vulnerable fall through the cracks. Mavhunga and Chikodzi (2021) emphasize the importance of

transparent and participatory targeting processes in reducing exclusion and increasing program credibility. Exclusion from FDMS further exacerbates the emotional stress already carried by older persons, making them feel invisible and unworthy of support. For disaster response programs to be effective, they must not only provide for the material needs of the vulnerable but must also uphold principles of justice, fairness, and dignity.

4.3.4 Lack of Coordination

The study also established that the FDMS lacked adequate coordination and follow-up services. While food was delivered, no structured system existed to check on the recipients afterwards or to monitor their health, wellbeing, or satisfaction with the aid. The elderly, many of whom live alone, often had no idea when the next distribution would occur or how to report challenges. Without follow-up visits, their evolving needs went unaddressed, and their vulnerability persisted. The absence of psychosocial support or community-based welfare monitoring left a gap that no food ration could fill.

An elderly man had this to say:

“After the food is dropped off, we don’t see anyone again until maybe the next month — or the next problem arises. If you are sick or confused about what you were given, there’s no one to ask for help or clarification. It’s like they give us the food and then just disappear.” (P9 – Elderly Man, 81 years)

The other woman had this to say:

“We once had a workshop about nutrition and how to cook better meals, but it only came once, and then it was gone. After that, nothing happened. There was no follow-up to check if we understood the information or even remembered what they taught us.” (– Elderly Woman, 74 years)

Another elderly man noted:

“Sometimes you hear one group saying one thing and another group saying something entirely different. It feels disorganized, and they don’t seem to be working together at all. When you ask about help, they tell you to go to the other office. It’s very confusing.” (Elderly Man, 76 years)

A key informant highlighted the issue:

“There’s a clear gap in continuity in our approach. Many times, after an activity, the team moves on to the next ward or project, leaving us with little follow-up. We’re understaffed, which means that elderly beneficiaries are often left alone without proper feedback or support.” (Key Informant – NGO Field Officer)

This finding reveals a lack of inter-agency coordination and aftercare that is crucial for maintaining the wellbeing of elderly recipients. According to Mupedziswa (2017), effective social protection involves not just delivery of goods but emotional and psychosocial reinforcement. The socio-ecological model supports this, noting that elderly individuals thrive when systems around them family, service providers, and community leaders act in harmony to support their wellbeing. The FDMS, however, has remained largely transactional, delivering food without ensuring that beneficiaries are supported in understanding or utilizing it fully. This creates a cycle of dependency without empowerment, and it limits the long-term impact of the initiative. The elderly need not only food, but someone who walks with them, listens, and checks that they are coping.

The study revealed that the challenges in FDMS implementation are not merely technical they are structural, relational, and ethical. From erratic delivery schedules and exclusionary targeting to lack of aftercare, the FDMS falls short in serving the dignity, humanity, and holistic needs of elderly persons. A more coordinated, inclusive, and participatory approach is needed to make food security programs meaningful for the ageing population.

4.3.5 Benefits Realized Through FDMS in Addressing Food Insecurity among the Elderly

This objective analyzes the benefits that were realized by the elderly through the implementation of the Food Deficit Mitigation Strategy (FDMS) in Ward 15 of Mazowe Rural District. The findings of the study revealed that despite the multiple challenges that characterized the execution of the program, the elderly did derive some tangible advantages which contributed to their survival

and emotional resilience during the height of the El Niño-induced drought. The researcher found out that although the FDMS program was often criticized for being inconsistent and inadequately resourced, for many elderly participants, it provided a critical lifeline. The program played a vital role in cushioning elderly-headed households from the harshest effects of food insecurity, with participants expressing that the food aid, however small or delayed, helped them to survive prolonged periods of hunger. Additionally, some beneficiaries indicated that the interactions they had with relief workers, however limited, restored a sense of visibility, human dignity, and psychological comfort. While there were concerns about the reach and sufficiency of the interventions, it is important to acknowledge that the FDMS, even in its limitations, provided some degree of support and hope to elderly people who would otherwise have been completely excluded from humanitarian assistance. The benefits are discussed under the subthemes below.

4.3.6 Alleviation of Immediate Hunger

The study revealed that the distribution of basic food commodities such as maize meal, cooking oil, and beans under the FDMS helped alleviate immediate hunger and nutritional stress among elderly beneficiaries. The researcher found out that for many elderly people, particularly those with no regular income or familial support, the food they received under the program became their primary or only reliable source of sustenance. Participants recounted that the rations received, though not always sufficient or consistently delivered, were nonetheless crucial in helping them and their dependents survive times of severe food scarcity. The elderly often experience physical vulnerability and underlying health conditions which are worsened by malnutrition, making food aid an indispensable element in maintaining their basic well-being. These findings underscore the importance of emergency food assistance in protecting not just physical health but also psychological well-being. Many elderly participants described feelings of relief and dignity upon receiving food parcels, illustrating that such aid offered more than nutritional value it affirmed their worth and humanity.

One elderly man had this to say:

“Pandakapiwa hupfu nechibage, ndakanzwa sekuti ndiri zvakare munhu. Ndainge ndisina kudya kwenguva yakati, uye chingwa chainge chava kusiri chinhu. Ndakaita zvekupfumbata misodzi

pakauya chikafu.” (“When I received the maize meal and sorghum, I felt like I was human again. I had gone for days with barely anything to eat, and bread was no longer an option. I nearly cried when the food came.”) (P10 – Elderly Man, 81 years)

Another elderly woman had this to say:

“Zvakandibatsira kupfuura zvandaifungidzira. Vana vangu vari kumadhorobha havakwanisi kundibatsira nguva dzese, saka chikafu ichi chaive ruponeso. Kunyangwe chakanga chiri chidiki, ndaigovana nevana vaviri vandinogara navo.” (“It helped me more than I expected. My children in town can’t support me all the time, so this food was a rescue. Even though it was a small amount, I shared it with the two grandchildren I live with.”) (Elderly Woman, 75 years)

A key informant supported these sentiments:

“In situations of disaster, even a single meal per day makes a huge difference for vulnerable groups like the elderly. The FDMS helped avert starvation in areas where no other help was coming.” (Key Informant – Local Social Welfare Officer)

These findings reveal that emergency food assistance under FDMS served as a critical buffer against starvation for elderly persons in Ward 15. While the program did not meet all their nutritional needs, it mitigated the worst effects of hunger, especially during peak drought periods. From a rights-based perspective, access to food is a fundamental entitlement, and for the elderly many of whom are frail, sickly, or socially isolated the role of food aid extends beyond caloric intake. According to Hove and Gwemende (2020), food aid interventions must be embedded within broader social protection frameworks that recognize the intersection of aging, poverty, and vulnerability. The findings affirm that while FDMS was not perfect, its presence made a substantial difference in the lives of elderly people who were at risk of being completely left behind. The emotional gratitude expressed by participants also points to the importance of treating humanitarian aid not merely as logistical distribution, but as a tool for social inclusion and dignity restoration.

4.3.7 Restoration of Hope

The study further revealed that beyond the tangible benefits of food provision, the FDMS program contributed to the restoration of hope and emotional relief among the elderly. The researcher found out that brief interactions with staff from government departments and NGOs created rare moments of social connection for many elderly individuals, who otherwise lived in isolation. Participants narrated that receiving food from people who showed respect, listened to their concerns, and acknowledged their existence was often more emotionally healing than the food itself. These encounters provided psychological comfort and rekindled a sense of belonging within society. For some elderly persons, being remembered even by strangers was deeply meaningful in a context where they often feel invisible. The presence of relief workers created opportunities for human interaction, where elderly individuals could share their stories, express emotions, and receive affirming words. Although FDMS was not explicitly designed as a psychosocial intervention, these moments of contact became critical to the emotional health of recipients, who were struggling not just with hunger but also with loneliness and neglect.

One elderly woman had this to say:

“Pane rimwe zuva, ndakapihwa chikafu nevasocial workers, uye vakagara neni kwechinguvana vachinditeerera. Pandakapinda mumba mangu husiku ihwohwo, ndakanzwa sekuti kune vanhu vachiri kundifunga munyika.” (“One day, I was given food by the social workers, and they sat with me for a short while, listening to me. That night when I entered my hut, I felt like there were still people in this world who remembered me.”) (P7 – Elderly Woman, 79 years)

Another elderly woman echoed this experience:

“Handina kugara ndichipihwa zvekudya, asi panguva yandakapihwa, ndakanzwa kugadzikana mupfungwa. Ndakanga ndaneta nehupenyu husingatariswe. Vauya avo vakaita sekunge vanhu vanondinzwisisa.” (“I wasn’t receiving food consistently, but the time I did, I felt peace of mind. I was tired of a life where no one sees you. The people who came made me feel understood.”) (Elderly Woman, 82 years)

A key informant from a local NGO supported this finding:

“Some beneficiaries cried not just because of food, but because someone spoke to them with respect. It’s not always the food, it’s the recognition and care that heals.” (Key Informant – NGO Field Worker)

These findings reveal that humanitarian assistance, when delivered with compassion, becomes a powerful vehicle for emotional healing and social reintegration. The emotional testimonies of elderly participants reflect the deep hunger for recognition that often coexists with material deprivation. According to Mupedziswa (2018), psychosocial support must be integrated into all interventions that target the elderly, particularly in crises, because emotional security is a cornerstone of human dignity. The mere act of sitting down, listening, and showing concern goes a long way in mitigating feelings of abandonment and helplessness among the elderly. Informed by the socio-ecological framework, the presence of supportive relationships, even short-lived, can help reduce the mental health risks associated with social isolation. The findings affirm that in disaster responses, psychosocial considerations should not be treated as secondary but as integral to the overall wellbeing of beneficiaries. Programs like FDMS can therefore be more impactful when they deliberately embed empathy, respect, and relational care into their delivery models.

In conclusion, the benefits realized through FDMS, though limited and uneven, were nonetheless significant in alleviating both physical and emotional suffering among elderly people in Ward 15. The study highlights that food aid under FDMS served not only as a nutritional resource but also as a source of dignity, recognition, and hope. These outcomes reinforce the need for a more holistic, elderly-sensitive approach in social protection programming one that considers the full spectrum of human needs, including emotional and social well-being.

4.4.1 Alleviation of Immediate Hunger

The study revealed that the provision of food aid, particularly maize meal, beans, and cooking oil, under the FDMS program played a crucial role in addressing immediate hunger and nutritional stress among elderly recipients. The researcher found out that although distributions were not always consistent or sufficient, they nonetheless helped many elderly people stave off starvation, especially those without regular sources of income or familial support. In some instances, the food parcels were the only source of nourishment for entire households, particularly where elderly

individuals were also primary caregivers to orphaned grandchildren. The availability of food even in small quantities provided a level of nutritional stability that many had not experienced in months. For frail, ill, and aging individuals, this was not just a matter of eating it was a matter of survival.

One elderly man had this to say:

"Pandakapiwa hupfu nechibage, ndakanzwa sekuti ndiri zvakare munhu. Ndainge ndisina kudya kwenguva yakati, uye chingwa chainge chave kusiri chinhu. Ndakaita zvekupfumbata misodzi pakauya chikafu." ("When I received the maize meal and sorghum, I felt like I was human again. I had gone for days with barely anything to eat, and bread was no longer an option. I nearly cried when the food came.") (P10 – Elderly Man, 81 years)

Another elderly woman had this to say:

"Zvakandibatsira kupfuura zvandaifungidzira. Vana vangu vari kumadhorobha havakwanisi kundibatsira nguva dzese, saka chikafu ichi chaive ruponeso. Kunyangwe chakanga chiri chidiki, ndaigovana nevana vaviri vandinogara navo." ("It helped me more than I expected. My children in town can't support me all the time, so this food was a rescue. Even though it was a small amount, I shared it with the two grandchildren I live with.") (Elderly Woman, 75 years)

A key informant from the Department of Social Welfare confirmed:

"In situations of disaster, even a single meal per day makes a huge difference for vulnerable groups like the elderly. The FDMS helped avert starvation in areas where no other help was coming." (Key Informant – Social Welfare Officer)

These findings reveal that the FDMS served as a lifeline, mitigating extreme food deprivation among elderly-headed households. The food support not only filled empty stomachs but helped protect the dignity of recipients by enabling them to care for dependents and feel less helpless. Literature by Hove and Gwemende (2020) reiterates the role of food assistance as more than nutritional relief; it is also a mechanism through which identity and self-worth are reaffirmed. In contexts of crisis, the elderly already dealing with physical decline are especially vulnerable to the

psychological consequences of hunger, such as hopelessness and despair. The findings therefore underscore the necessity of consistently integrating emergency food aid into broader responses to drought and disaster.

4.4.2 Restoration of Hope

The researcher also found out that the FDMS had psychological and emotional benefits that extended beyond material relief. While the primary goal of the program was to distribute food, the act of delivery, accompanied by human interaction, gave many elderly individuals a renewed sense of hope and emotional comfort. The study revealed that elderly beneficiaries often experienced deep social isolation, and the presence of program personnel even if only for a short moment brought reassurance that they were not forgotten. For some, the presence of relief workers was their only human contact for weeks, and the kindness and respect shown during these interactions left a lasting emotional imprint. These moments made recipients feel seen and validated in a society where they often feel invisible.

One elderly woman had this to say:

"Pane rimwe zuva, ndakapihwa chikafu nevasocial workers, uye vakagara neni kwechinguvana vachinditeerera. Pandakapinda mumba mangu husiku ihwohwo, ndakanzwa sekuti kune vanhu vachiri kundifunga munyika." ("One day, I was given food by the social workers, and they sat with me for a short while, listening to me. That night when I entered my hut, I felt like there were still people in this world who remembered me.") (P7 – Elderly Woman, 79 years)

Another elderly woman echoed this view:

"Handina kugara ndichipihwa zvekudya, asi panguva yandakapihwa, ndakanzwa kugadzikana mupfungwa. Ndakanga ndaneta nehupenyu husingatariswe. Vauya avo vakaita sekunge vanhu vanondinzwisisa." ("I wasn't receiving food consistently, but the time I did, I felt peace of mind. I was tired of a life where no one sees you. The people who came made me feel understood.") (– Elderly Woman, 82 years)

A key informant echoed similar sentiments:

"Some beneficiaries cried not just because of food, but because someone spoke to them with respect. It's not always the food, it's the recognition and care that heals." (Key Informant – NGO Field Worker)

These findings demonstrate that emotional support and validation are crucial elements in service delivery to the elderly. Even when food parcels were meagre, the compassion embedded in the interaction uplifted recipients' spirits and reminded them of their humanity. Mupedziswa (2018) affirms that psychosocial support should be treated as a foundational component of any program targeting the elderly. For many elderly persons, emotional neglect is a daily reality, and any intervention that includes even minimal personal contact becomes a restorative experience. These findings are aligned with the socio-ecological theory, which advocates for holistic, layered approaches to care that incorporate emotional, relational, and material dimensions of wellbeing. Although the FDMS was fraught with limitations, it brought about significant benefits that helped cushion elderly beneficiaries from total collapse. From mitigating hunger to restoring a sense of worth, the intervention had layered impacts that warrant recognition. The researcher found out that when implemented with empathy and consistency, even basic food aid can contribute meaningfully to both the physical and emotional resilience of elderly-headed households.

4.3 Chapter Summary

The chapter has presented findings on the nature of services provided under FDMS, challenges encountered in implementation, and the benefits realized by elderly participants. Data was presented thematically, supported by quotations and scholarly literature. The findings show that while FDMS has contributed positively to reducing food insecurity, several operational challenges hinder its full effectiveness. Interpretation guided by the Socio-Ecological Theory reveals the need for context-specific and inclusive program strategies. The next chapter draws conclusions and makes recommendations for improving.

CHAPTER 5:

SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS.

5.1 Introduction

This chapter synthesizes the research findings related to the Food Deficit Mitigation Strategy (FDMS) program and its impact on food insecurity among elderly residents in Ward 15 of Mazowe Rural District, Zimbabwe. The summary is structured by objective, followed by conclusions drawn from the findings. The implications of these findings for social work practice are discussed, along with specific recommendations for stakeholders. A comprehensive model is proposed to address the identified challenges effectively.

5.2 Summary of Findings

5.2.1 Understanding services offered under the FDMS program

The study's findings indicate that the FDMS program provides a multifaceted approach to alleviating food insecurity among the elderly, encompassing food distribution, nutritional education, and agricultural support. Participants reported that monthly food rations significantly mitigated their immediate food shortages, while nutritional education sessions empowered them to make informed dietary choices. Agricultural support enabled participants to cultivate their own food, enhancing their access to fresh produce and promoting long-term sustainability.

The findings suggest that the FDMS program's comprehensive services have a positive impact on food security among elderly residents. Nutritional education and agricultural support were identified as crucial components, contributing to the program's effectiveness.

5.2.2 Challenges faced by the FDMS program

The second objective focused on exploring the challenges faced by the FDMS program in addressing food insecurity among the elderly. The findings indicated several significant barriers, including logistical issues related to transportation, a lack of awareness about available services, and cultural barriers that hinder access to assistance. Many participants reported that poor road conditions and limited transportation options made it challenging to reach food distribution points,

leading to missed opportunities for vital assistance. This logistical challenge is particularly pronounced for elderly individuals with mobility issues.

Additionally, there was a consensus among participants that inadequate outreach efforts contributed to underutilization of FDMS services. Many elderly individuals learned about the program only through word of mouth, indicating a need for improved communication strategies. This lack of awareness not only limits access to services but also perpetuates food insecurity among the elderly population.

Cultural barriers were also identified as impediments to accessing assistance. Some participants reported feeling stigmatized or embarrassed about seeking help, which further exacerbates their vulnerability. Addressing these cultural perceptions is crucial for enhancing participation in the FDMS program and ensuring that all elderly individuals receive the support they need.

5.2.3 Benefits realized by the elderly

The third objective aimed to scrutinize the benefits realized by elderly individuals through the FDMS program. The findings indicated that the program significantly improved food security and overall quality of life for participants. Many elderly individuals reported feeling more secure in their ability to access food, which positively impacted their physical and mental health. For instance, several participants noted that the nutritional education received through the FDMS helped them manage chronic health conditions more effectively.

Moreover, the sense of empowerment gained from participating in agricultural training was evident among many elderly individuals. They expressed pride in their ability to grow their own food, which not only improved their diets but also fostered a sense of accomplishment and independence. This empowerment is crucial for enhancing the resilience of elderly populations against food insecurity.

The social aspect of the FDMS program was also highlighted as a benefit. Participants reported that the program facilitated social interactions among community members, which helped combat isolation and loneliness often experienced by the elderly. This sense of community support is vital for promoting overall well-being and resilience among vulnerable populations.

5.2.4 Intervention strategies to enhance FDMS effectiveness

The final objective focused on identifying intervention strategies to enhance the effectiveness of the FDMS program. Participants expressed the need for better transportation options to facilitate access to food distribution points. Implementing community-based transportation initiatives could alleviate some of the barriers faced by elderly individuals. Additionally, enhancing outreach and communication strategies was emphasized as a critical intervention. Utilizing local media and community gatherings to disseminate information effectively could raise awareness about the FDMS program, ensuring that all elderly residents are informed.

Moreover, integrating feedback mechanisms into the FDMS program could help tailor services to meet the specific needs of elderly participants more effectively. Establishing regular consultations with the elderly could provide valuable insights into their experiences and help refine the program.

5.2.5 Conclusions

The research findings lead to several important conclusions that will be elaborated below:

5.2.6 Comprehensive service provision:

The FDMS program effectively addresses food insecurity among elderly residents by providing a multifaceted range of services that include food distribution, nutritional education, and agricultural support. These services are essential for improving the dietary habits and overall well-being of vulnerable populations.

5.2.7 Significant barriers

Logistical challenges, such as poor transportation and limited outreach efforts, significantly hinder access to the FDMS services for elderly individuals. These barriers must be addressed to enhance service delivery and ensure that all eligible participants can benefit from the program.

5.2.8 Empowerment and independence

The FDMS not only improves food security but also empowers elderly participants by fostering self-sufficiency through agricultural training and nutritional education. This empowerment is essential for building resilience against food insecurity and enhancing quality of life.

5.2.9 Community support

The social connections formed through the FDMS program play a crucial role in combating loneliness and isolation among elderly individuals, highlighting the importance of community engagement in food security initiatives.

5.2.10 Need for targeted interventions

There is a clear need for targeted interventions that focus on improving transportation options, enhancing outreach and communication strategies, and incorporating feedback mechanisms to adapt the FDMS program to better meet the needs of the elderly.

5.2.11 Implications for social work practice and policy

The findings of this study have several important implications for social work practice, policy formulation, and community development:

5.2.12 Social work practice

- **Advocacy and policy influence:** Social workers should advocate for infrastructural improvements and enhanced transportation services as critical enablers for elderly access to food assistance. They play a vital role in liaising between beneficiaries, government agencies, and NGOs to ensure responsive policies.
- **Community engagement:** Social workers must foster community participation by empowering elderly populations to voice their needs and preferences. Facilitating trust-building activities and creating platforms for elderly involvement strengthens program relevance and uptake.

- **Holistic Support:** Integrating nutritional education, psychosocial support, and agricultural training within social work interventions aligns with the values of dignity, autonomy, and empowerment. Social workers can help bridge gaps between immediate food aid and long-term resilience building.
- **Cultural Sensitivity:** Recognizing and addressing cultural barriers to food assistance is essential. Social workers should design outreach strategies that reduce stigma and promote inclusiveness, ensuring vulnerable elderly individuals feel safe to seek help.

5.2.13 Policy implications

- **Inclusive food security policies:** Policymakers must ensure that food security strategies explicitly address the unique needs of elderly populations, recognizing their vulnerabilities related to mobility, health, and social isolation.
- **Infrastructure investment:** Sustainable food security demands government commitment to improving rural infrastructure, including roads and transport services, to facilitate access to social protection programs like FDMS.
- **Multi-stakeholder collaboration:** Effective food security programming requires coordinated efforts among government, NGOs, community organizations, and beneficiaries. Policies should encourage partnerships that leverage local knowledge and resources.
- **Data-driven programming:** The development of monitoring and feedback systems involving elderly beneficiaries will enhance the adaptability and effectiveness of food security interventions.

Broader community development

- **Empowerment and resilience:** Holistic approaches that combine food aid with education and agricultural support can transform vulnerable elderly individuals into active agents of their own food security, promoting sustainable community development.
- **Social capital:** Strengthening social networks through FDMS activities combats social isolation and builds community cohesion, which is vital for collective resilience in the face of climate-related food insecurity.

5.3 Elderly Food Security Enhancement Model (E-FSEM)

The Elderly Food Security Enhancement Model (E-FSEM) was developed in response to the persistent challenges of food insecurity experienced by the elderly in Ward 15 of Mazowe Rural District. Drawing on the findings of this study and guided by socio-ecological theory, the model presents a comprehensive, layered intervention to address both immediate food shortages and the structural barriers that exacerbate food insecurity among the elderly. The model integrates community-based services, educational strategies, and empowerment initiatives into a holistic approach that promotes sustainability and dignity.

5.3.1 Problem Addressed by the Model

The E-FSEM addresses the problem of chronic food insecurity among the elderly in rural Zimbabwe, specifically worsened by climate change events such as El Niño. The model responds to structural challenges such as lack of mobility, inadequate outreach, weak social networks, and poor access to agricultural and nutritional education. Without targeted and holistic interventions, elderly persons remain at risk of malnutrition, social isolation, and poor health outcomes.

5.3.2 Goal of the Model

The overarching goal of the E-FSEM is to enhance food security among elderly residents by providing a sustainable, community-anchored response that promotes empowerment, inclusion, and resilience. It aims to shift the elderly from passive recipients of food aid to active participants in food systems through education, production, and social support.

5.3.3 Inputs (Resources Required)

- ☐ Maize meal, cooking oil, and pulses for food relief
- ☐ Nutrition education materials and facilitators
- ☐ Agricultural inputs: seeds, hoes, watering cans
- ☐ Climate-smart training manuals
- ☐ Transportation (community shuttle or transport subsidies)

- Community volunteers and social workers
- IEC materials for outreach and awareness
- Monitoring and feedback tools (surveys, suggestion boxes)

5.3.4 Processes/Implementation Steps

1. Identify elderly beneficiaries through community mapping.
2. Establish localized food distribution points with regular schedules.
3. Conduct nutrition education workshops in accessible venues.
4. Provide seeds, tools, and training on small-scale, climate-smart farming.
5. Organize community engagement forums and support groups.
6. Disseminate outreach information via local radio, posters, and leaders.
7. Establish feedback loops to incorporate elderly voices in programming.

5.3.5 Outputs (Direct Results)

- Regular, accessible food parcels for elderly residents
- Increased nutritional knowledge among the elderly
- Enhanced self-sufficiency through home gardens and group farms
- Strengthened social ties and emotional support systems
- Increased awareness of FDMS and elderly entitlements
- Timely response and adjustments via feedback mechanisms

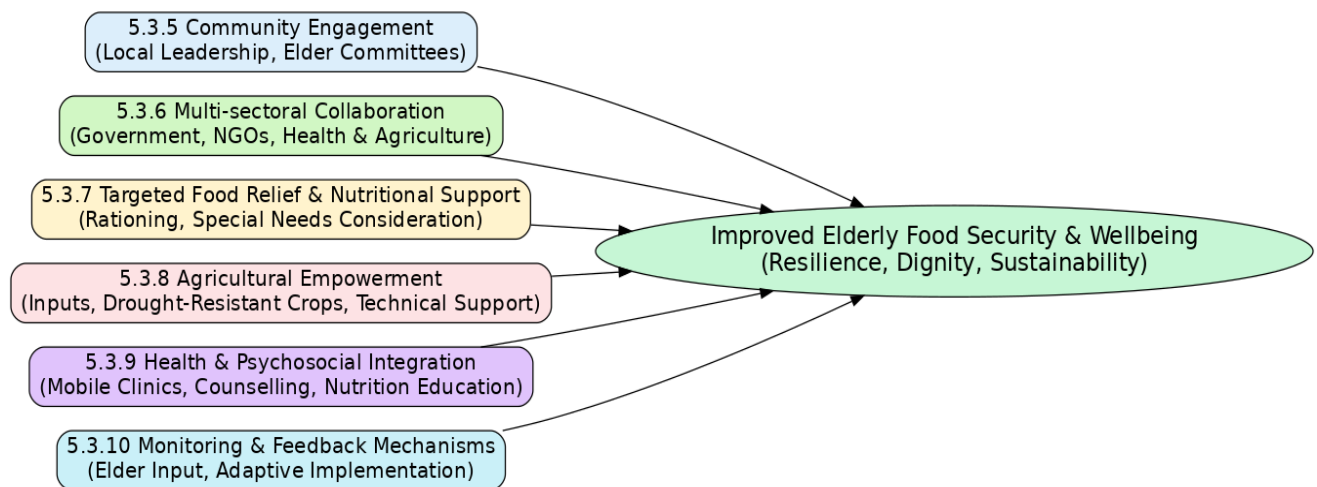
5.3.6 Outcomes (Impact and Achievements)

- Reduced incidence of hunger and malnutrition among the elderly
- Improved health and emotional well-being
- Enhanced resilience to climate shocks through diversified food access

- Empowered elderly actively engaged in household food production
- Institutionalized community support systems for elderly welfare

5.3.7 Visual Representation of the Model

The model can be visually represented as a central hub titled “Elderly Food Security Enhancement Model (E-FSEM)” connected to six surrounding components: Food Distribution, Nutritional Education, Agricultural Support, Community Engagement, Awareness and Outreach, and Feedback Mechanisms. Arrows indicate dynamic interaction among the components, showing the layered, circular nature of the support system around elderly food security.



5.4 Recommendations

Based on the findings and conclusions, several specific recommendations are proposed for various stakeholders:

5.4.1 For the Government

The government should prioritize enhancing transportation services to assist elderly individuals in reaching food distribution points. This can be achieved by investing in community-based transportation solutions and collaborating with local transport providers to create a volunteer

transportation network. Improved transportation will ensure that elderly individuals can access essential food assistance, thereby reducing food insecurity and improving their quality of life.

Additionally, the government must allocate resources to improve road conditions and access to food distribution centers. By investing in infrastructure development, the government can facilitate timely delivery of food assistance and enhance the overall effectiveness of the FDMS program.

5.4.2 To community organizations

Local community organizations play a critical role in increasing outreach efforts for the FDMS program. They should utilize local media and community gatherings to disseminate information about available services, ensuring that all elderly residents are informed and engaged. Establishing partnerships with local radio stations and community centers can enhance visibility and reach within the community.

Community organizations should also encourage initiatives that promote social interactions among elderly individuals, combating isolation and enhancing support networks. Regular community gatherings can foster a sense of belonging and support, thereby improving the overall well-being of elderly residents.

5.4.3 For future research

Future research should focus on conducting longitudinal studies that explore the long-term impacts of the FDMS program on food security and health outcomes among elderly participants. This will provide valuable insights into the sustainability and effectiveness of the program over time.

Additionally, further research should investigate the cultural barriers surrounding food assistance to develop strategies that encourage participation among the elderly. Understanding these cultural perceptions will be essential for tailoring outreach efforts effectively.

5.4.4 To social workers and practitioners

Social workers should implement feedback mechanisms by establishing regular consultations with elderly participants to gather insights and adapt services to better meet their needs. Creating advisory committees that include elderly representatives can ensure that their voices are heard in decision-making processes.

Moreover, social workers should promote empowerment initiatives by facilitating training programs that help elderly individuals manage their nutritional needs and foster self-sufficiency. Empowerment is vital for enhancing resilience against food insecurity.

REFERENCES

Adger, W.N., Barnett, J., Brown, K., Marshall, N. & O'Brien, K. (2018). *Climate change and human security*. London: Routledge.

Ayalew, T., Gebreyes, B. & Desta, M. (2021). *Integrating local knowledge and sustainable practices in combating food deficits*. Addis Ababa: African Journal of Food Security.

Babatunde, R.O., Omotesho, O.A. & Sholotan, O.S. (2020). Food insecurity and its determinants in Sub-Saharan Africa. *Journal of Food Security*, 8(2), 23–56.

Behnassi, M., Pollmann, O. & Kissinger, G. (2020). *Sustainable agriculture and food security in the face of climate change*. Dordrecht: Springer.

Chari, F. & Ngcamu, B.S. (2017). The impact of droughts on food security in Zimbabwe. *Journal of Food Security*, 5(2), 23–56.

Chikanda, P. & Chigwada, J. (2021). *National food and nutrition security policy in Zimbabwe*. Harare: Government Printers.

Chikoko, R., Nyikadzino, T. & Bvuma, N. (2022). Evaluating the success of prior interventions within the FDMS framework. *Journal of Development Studies*, 58(1), 1–15.

Chikoko, R., Mhlanga, E. & Dongo, E. (2023). Community involvement in food security strategies. *Community Development Journal*, 58(2), 250–265.

Chikozho, C. (2018). Food insecurity and the elderly in rural Zimbabwe. *Journal of Aging Studies*, 55, 100–112.

Chikozho, C. & Mavhura, E. (2017). Awareness and access to food assistance programs among the elderly in Zimbabwe. *Journal of Development Studies*, 53(4), 550–565.

Chikozho, C. & Nyamunda, T. (2020). Food Deficit Mitigation Strategy (FDMS) services and elderly food access. *Journal of Aging Studies*, 55, 100–112.

Cooper, P.J.M., Dimes, J., Rao, K.P.C., Shapiro, B., Shiferaw, B. & Twomlow, S. (2016). *Impacts of climate change on food systems in Africa*. CCAFS Working Paper.

Davis, A., Kurukulasuriya, P. & Miranda, M.J. (2015). Food insecurity and health consequences in rural areas. *Journal of Rural Health*, 31(2), 145–155.

Devereux, S. (2016). Food insecurity in Sub-Saharan Africa. *IDS Bulletin*, 47(2), 1–12.

Dube, S. & Chikozho, C. (2023). Climate-resilient agricultural practices within the FDMS. *Journal of Sustainable Agriculture*, 57(1), 1–15.

Dube, S., Mlambo, S. & Ndhlovu, M. (2023). Community engagement in the FDMS. *Community Development Journal*, 58(3), 350–365.

FAO. (2018). *The state of food security and nutrition in the world*. Rome: Food and Agriculture Organization.

FAO. (2020). *The state of food security and nutrition in the world*. Rome: Food and Agriculture Organization.

Gadzirayi, C.T., Dube, E. & Mupfiga, B. (2021). Community-led initiatives for food security. *Journal of Community Development*, 52(2), 200–215.

Gonzalez, W., Johnson, C.M. & Ramirez, A. (2016). Rural-urban disparities in food insecurity among seniors. *Journal of Aging and Health*, 28(5), 830–846.

Gonzalez, W., Lee, J. & Price, R. (2021). Food systems and social protection measures. *Food Security*, 13(2), 349–363.

Guest, G., Namey, E.E. & Chen, M. (2020). A simple method to assess and report thematic saturation in qualitative research. *PLOS ONE*, 15(5), e0232076.

Gumbo, D.J. & Mavhunga, F. (2022). Challenges in FDMS implementation. *Journal of Development Studies*, 58(4), 700–715.

Gundersen, C. & Ziliak, J.P. (2015). Food insecurity and its effects. *Journal of Economic Perspectives*, 29(1), 121–144.

Hoddinott, J. (2015). Nutrition-sensitive development. *Lancet Global Health*, 3(7), e387–e388.

Ingram, J. (2021). Meeting future food demands. *Food Security*, 13(1), 1–13.

IPCC. (2019). *Climate change and land: Summary for policymakers*. Cambridge: Cambridge University Press.

IPCC. (2021). *Climate change 2021: The physical science basis*. Cambridge: Cambridge University Press.

Johnson, R.B. & Christensen, L. (2017). *Educational research: Quantitative and qualitative approaches*. Thousand Oaks, CA: Sage.

Johnson, R.B. & Lee, S. (2023). Targeted interventions for food insecurity among seniors. *Journal of Aging and Health*, 35(3), 450–465.

Lobell, D.B., Schlenker, W. & Costa-Roberts, J. (2011). Climate change and food security. *Annual Review of Environment and Resources*, 36, 179–198.

Malterud, K., Siersma, V.D. & Guassora, A.D. (2016). Sample size in qualitative interview studies: Guided by information power. *Qualitative Health Research*, 26(13), 1753–1760.

Marshall, B., Cardon, P., Poddar, A. & Fontenot, R. (2016). Sampling for qualitative research: An overview. *Journal of Qualitative Research*, 18(2), 1–10.

Mastrorillo, M., Mohapatra, S. & Roberts, B. (2016). The impact of El Niño on food security in Sub-Saharan Africa. *Journal of Food Security*, 4(2), 25–38.

Mavhura, E. (2016). Food insecurity and livelihoods in Zimbabwe. *Journal of Development Studies*, 52(6), 830–846.

Mavhura, E. & Chari, F. (2019). Food insecurity in Mashonaland Central Province, Zimbabwe. *Journal of Food Security*, 7(1), 15–28.

Mavhunga, F. & Gumbo, D.J. (2022). Nutritional education in the FDMS. *Journal of Nutrition Education and Behavior*, 54(2), 150–158.

Mlambo, S., Mutasa, F. & Dube, S. (2022). International collaborations for food security. *Food Security*, 14(3), 601–615.

Mahapatra, S.K., Panda, R. & Mohanty, P.K. (2015). Natural disasters and food security. *Journal of Food Security*, 3(1), 1–12.

Ndiweni, S. & Musarurwa, C. (2015). Food insecurity and the elderly in rural Zimbabwe. *Journal of Food Security*, 1(1), 35–48.

Osei, R.D. & Osei, A.K. (2021). Vulnerability of the elderly to food insecurity in Zimbabwe. *Journal of Development Studies*, 57(5), 750–765.

Polit, D.F. & Beck, C.T. (2017). *Nursing research: Generating and assessing evidence for nursing practice*. Philadelphia: Wolters Kluwer.

Schmidt, A., Palik, J. & Thomas, L. (2018). Logistical challenges in food aid distribution. *Journal of Humanitarian Logistics and Supply Chain Management*, 8(1), 50–67.

Senzanje, A., Makoni, F.S. & Mufudza, P. (2019). Food insecurity and health outcomes among the elderly in Zimbabwe. *Journal of Nutrition in Gerontology and Geriatrics*, 38(2), 150–165.

Thompson, S.K. (2020). *Sampling*. New Jersey: John Wiley & Sons.

WFP. (2021). *Global report on food crises*. Rome: World Food Programme.

APPENDICES

APPENDIX A: Participant Semi-Structured Interview Guide: For Elderly Households in Mazowe Ward 15

Introduction

Hello, my name is Takunda Chinanga. I am pursuing a Bachelor of Science Honours Degree in Social Work at Bindura University of Science Education. I am conducting research titled “Food Deficit Mitigation Strategy (FDMS) Program and El Niño-Induced Food Insecurity among the elderly in Ward 15 of Mazowe Rural District.” Your participation is completely voluntary, and you may withdraw at any time. The information collected will remain confidential and used solely for educational purposes.

SECTION A

SECTION A

1. SEX (TICK WHERE APPLICABLE)

Male	<input type="checkbox"/>
Female	<input type="checkbox"/>

2. Age Range

60-65 years	<input type="checkbox"/>
70-79 yes	<input type="checkbox"/>
80 +	<input type="checkbox"/>
	<input type="checkbox"/>

3. Health Condition

- Do you have any chronic health issues? (Yes/No)

- If yes, please specify: _____

SECTION B

Research Question 1

What services does the FDMS provide to the elderly to address El Niño-induced food insecurity in Ward 15?

Probing Questions

1. What specific services have you benefited from through the FDMS program?
 2. How have these services impacted your food security situation?
 3. Can you describe how these services are delivered to you?
-

Research Question 2

What challenges exist within the FDMS program regarding food insecurity among the elderly?

Probing Questions

1. What food security issues do you encounter as an elderly resident?
 2. What obstacles have you faced in accessing FDMS services?
 3. What do you believe are the underlying causes of these challenges?
 4. Have you experienced any social or cultural barriers in obtaining these services?
 5. How have you managed these difficulties?
-

Research Question 3

What food security benefits have elderly households gained from the FDMS Program in Ward 15?

Probing Questions

1. What benefits have you experienced from the FDMS services?
 2. Have you noticed any improvements in your household's situation since receiving support from FDMS?
 3. What lasting benefits do you attribute to the FDMS services?
-

Research Question 4

What strategies could improve the FDMS program's effectiveness in ensuring food security for the elderly in Ward 15?

Probing Questions

1. What additional support or services would enhance the FDMS program?
 2. How could the FDMS be adjusted to better serve the elderly population?
 3. Are there other initiatives that could support the FDMS for improved results?
-

APPENDIX B: Semi-structured interview guide: For Key Informants

Background

My name is Takunda Chinanga, and I am a fourth-year student at Bindura University of Science Education. My research investigates the effectiveness of the FDMS in tackling food insecurity

among the elderly in Ward 15 of Mazowe Rural District. Participation is voluntary, and all responses will be kept confidential.

Research Question 1

What services does the FDMS offer to the elderly in Ward 15?

Probing Questions

1. What specific services are available to elderly individuals through the FDMS?
 2. How effective are these services in mitigating food insecurity?
 3. What criteria are used to identify elderly beneficiaries?
 4. What processes are in place to assess and meet the needs of elderly households?
-

Research Question 2

What challenges does the FDMS encounter in supporting the elderly?

Probing Questions

1. What are the main obstacles in reaching elderly individuals?
 2. How do logistical or financial challenges influence service delivery?
 3. What social or cultural factors hinder access for the elderly?
 4. How does local governance impact the implementation of FDMS for elderly households?
-

Research Question 3

What benefits have elderly households realized from the FDMS?

Probing Questions

1. What changes in food access or availability have you noticed?
 2. Can you share any success stories that highlight the program's impact?
 3. Which aspects of the FDMS have been particularly effective for elderly participants?
-

Research Question 4

What strategies could enhance the FDMS for the elderly?

Probing Questions

1. What additional strategies could improve the FDMS for elderly beneficiaries?
 2. How can community involvement strengthen the effectiveness of FDMS?
 3. What modifications would make the FDMS more inclusive for elderly residents?
-

I sincerely appreciate you taking the time to participate in this interview. Your perspectives and experiences are essential for understanding the effects of the Food Deficit Mitigation Strategy (FDMS) and the challenges related to El Niño-induced food insecurity among the elderly in Ward 15. Your input will be instrumental in shaping effective strategies to enhance food security for those in need.


Please keep in mind that your responses will be kept confidential and used exclusively for academic purposes. If you have any further questions or wish to share additional thoughts after our discussion, don't hesitate to reach out. Your contributions are important, and together we can strive for better solutions for our community.

Thank you once again for your valuable participation!

APPENDIX C: Request letter

FACULTY OF SOCIAL SCIENCES AND HUMANITIES
DEPARTMENT OF SOCIAL WORK

P. Bag 1020
BINDURA, Zimbabwe
Tel: 263-71-7531-6, 7621-4
Fax: 263-71-7534



BINDURA UNIVERSITY OF SCIENCE EDUCATION

Date: 16 APRIL 2025


TO WHOM IT MAY CONCERN:


RE: REQUEST TO UNDERTAKE RESEARCH PROJECT IN YOUR ORGANISATION

This serves to introduce the bearer, CHINANGA TAKUWDA Student Registration Number B213393B, who is a BSc Social Work student at Bindura University of Science Education and is carrying out a research project in your area/institution.

May you please assist the student to access data relevant to the study, and where possible, conduct interviews as part of a data collection process.

Yours faithfully


E.E. CHIGONDO
CHAIRPERSON



APPENDIX D:

Official communications should
Not be addressed to individuals

Telephone: 703711/790721-4
Harare



Zimbabwe

MINISTRY OF PUBLIC SERVICE, LABOUR AND
SOCIAL WELFARE

Compensation House

Cnr S.V Muzenda and Central Avenue

HARARE

22 APRIL 2025

Takunda Chinanga (B213393B)
Bindura University of Science Education

**REF: LETTER OF APPROVAL TO CONDUCT A RESEARCH STUDY TITLED 'FOOD
DEFICIT MITIGATION STRATEGY (FDMS) PROGRAM AND ELNNINO- INDUCED
FOOD INSECURITY AMONG THE ELDERLY OF WARD 15 OF MAZOWE RURAL
DISTRICT, ZIMBABWE'.**

Receipt of your letter with the above mentioned matter is acknowledged.

Please be advised that permission is hereby granted for you to carry out research titled 'Food deficit mitigation strategy program and Elnnino-induced food insecurity among the elderly of ward 15 of Mazowe rural district, Zimbabwe.'

Permission is granted *STRICTLY on condition that the research is for academic purposes only* in pursuit of your BSc Honours Degree in Social Work. The data collected should not be shared to third party (3rd).

You are requested to submit a copy of your final research documents to the Department of Social Development upon completion as your research has a bearing on the Department's mandate.


T. Zimhunga

Director Social Development.

MINISTRY OF PUBLIC SERVICE, LABOUR AND SOCIAL WELFARE

