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Examining the Effects of Drought on Household Food Security: A Case Study of Manyika Ward, Chongwe District

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Abstract

This study examined the effects of drought on household food security in Manyika Ward, Chongwe District. The concern arose because drought has become more frequent in recent years, making it harder for rural households to maintain reliable food supplies. The focus was placed on how recurrent droughts affect food availability and access, the coping strategies used by households, and the effectiveness of local and government interventions in mitigating food insecurity. A descriptive research design was used, and data were analyzed using percentages to summarize household responses. A mixed-method approach was employed to achieve a comprehensive understanding of the problem. Quantitative data were collected through structured questionnaires administered to 100 households purposely selected from a vulnerable population of approximately 200 households. Qualitative insights were gathered to complement the survey and provide deeper context on community experiences during drought. Information collected included household demographics, economic activities, crop production patterns, and how families manage food shortages during periods of insufficient rainfall. The findings revealed that recurrent droughts have severely reduced household food availability. The analyzed data showed that 84% of respondents experienced reduced food production, while 72% reported frequent crop failures, mainly affecting staple crops such as maize. In addition, 69% indicated that household food stocks were exhausted shortly after harvest, demonstrating increased vulnerability to food shortages. Livestock production was also affected, with 61% reporting livestock losses due to water and pasture shortages. Regarding food access, the study found that drought significantly limited households' ability to obtain food. About 76% of respondents reported difficulty-accessing food, while 74% experienced increased food prices during drought periods. Furthermore, 71% reported reduced household income, making it difficult to purchase food. As a result, 68% of households reduced the number of meals consumed per day, indicating worsening food insecurity. The study also established that households rely on various coping strategies to survive drought conditions. About 82% reduced meal frequency, 78% engaged in casual labor, 73% borrowed food or money, and 69% sold household assets to meet food needs. Although these strategies help households survive in the short term, they often weaken long-term livelihood stability.

In terms of interventions, the study found that both local and government responses play an important role but remain insufficient. About 72% of respondents benefited from local community support systems, while 74% received some form of government assistance, including food relief and cash transfers. However, 68% of respondents indicated that local interventions were not adequate, and 69% stated that government support was insufficient to fully address food insecurity, mainly due to limited coverage and delays. The study concludes that recurrent droughts significantly undermine household food security in Manyika Ward through reduced food production and access. It recommends strengthening irrigation systems, improving social protection programmes, enhancing community-based interventions, and promoting livelihood diversification and early warning systems to build resilience against future droughts.

Keywords: Food Security, Smallholder Famer, Food Availability, Climate Variability

1. Introduction

1.1 Background

Food security is still a major issue worldwide, especially in developing countries where people's livelihood depend on agriculture and natural resources. Many rural communities depend on small-scale farming, which is highly sensitive to climatic conditions. According to Nkomoki *et al*. (2019), many households in Zambia continue to experience food insecurity due to both environmental and socio-economic challenges.

Drought causes of household food insecurity because it reduces crop production and affects access to food. Since 2015, hunger has been increasing worldwide due to climate shocks such as drought, floods, and changing rainfall patterns. In 2019, about

690 million people (8.9% of the global population) were undernourished, showing an increase of nearly 60 million people from 2014 levels (FAO, 2020). In 2020, the number further increased to between 720 and 811 million people due to multiple shocks, including climate change and economic disruptions (FAO *et al*., 2021). Drought contributes to these conditions by reducing food availability, increasing food prices, and weakening household livelihoods, especially in poor countries.

On the other hand, Africa is a continent that is highly affected by drought because most people depend on rain-fed agriculture. Food insecurity has been increasing in Africa since 2015 after a period of improvement. In 2019, about 250 million people in Africa were undernourished, representing about 19.1% of the population (FAO, 2020). By 2020, this number increased to about 281.6 million people, which is more than one-fifth of the population (FAO *et al*., 2021). Drought has contributed to this situation by causing crop failure, water shortages, and loss of income, making it difficult for households to access enough and nutritious food across the continent.

According to studies focusing on Sub-Saharan Africa, the region has the highest levels of food insecurity in the world due to frequent droughts and heavy dependence on agriculture. In 2019, about 22% of the population in Sub-Saharan Africa was undernourished, which is higher than any other region globally (FAO, 2020). The number of undernourished people in the region was estimated at about 235 million in 2019 (FAO, 2020). Drought has been one of the key drivers of this problem, as it reduces agricultural production and leads to loss of livelihoods. As a result, many households in the region adopt coping strategies such as reducing food intake, selling assets, and relying on food aid, which further increases their vulnerability.

Furthermore, Zambia has experienced repeated droughts between 2015 and 2020, which have negatively affected household food security. The 2015/2016 drought, for example, led to poor rainfall and reduced crop production across the country, affecting millions of people. In Southern Africa, including Zambia, about 9.2 million people were estimated to be food insecure in 2019 due to drought conditions (WFP, 2019). In addition, drought has continued to affect agricultural productivity, especially among small-scale farmers who depend on rainfall. This has resulted in reduced household income and limited access to food, making drought a major cause of food insecurity in Zambia.

The effects of drought on household food security are more severe in rural areas such as Chongwe District, where Manyika Ward is located. Most households in this area depend on subsistence farming, which is highly affected by rainfall variability. When drought occurs, crop yields are reduced, leading to food shortages and reduced income. This situation forces households to adopt coping strategies such as reducing meal frequency, selling livestock, and depending on external support. Therefore, studying the effects of drought on household food security in Manyika Ward is important for understanding local challenges and developing effective interventions to improve food security and resilience (FAO, 2020).

1.2 Statement of the Problem

Drought is increasingly becoming a major cause of household food insecurity because it reduces agricultural production and limits food availability. Between 2015 and 2020, global hunger continued to rise, with about 690 million people undernourished by 2019 due to climate-related shocks such as drought (FAO, 2020). This shows that drought is a key driver of food shortages and poor household livelihoods. However, many studies focus on global trends and do not clearly explain how drought affects household food security at local community level, creating a gap that needs further research.

Secondly, the problem is more serious due to heavy dependence on rain-fed agriculture, which is highly affected by drought. By 2020, about 281.6 million people in Africa were undernourished, showing a steady increase since 2015 (FAO *et al*., 2021). Drought has led to crop failure, water shortages and loss of income, which directly affect household food access. Despite this, there is still limited understanding of how these impacts differ across specific rural communities, which makes it difficult to design effective local interventions.

Thirdly, drought has become more frequent and severe, worsening food insecurity among small-scale farmers. In 2019, about 22% of the population in the region was undernourished, the highest globally (FAO, 2020). The main cause is unreliable rainfall, which leads to low crop yields and reduced household income. The effect is that many households fail to meet their daily food needs. However, most studies focus on regional data and do not provide detailed evidence on how individual households cope with drought at ward or district level.

Zambia has experienced repeated droughts which have greatly affected food security. In 2019, about 1.7 million people were in crisis levels of food insecurity, and this number increased to about 2.3 million during the lean season due to poor rainfall and crop failure. In 2020, about 1.42 million people (22% of the population analysed) were still facing high levels of acute food insecurity. These conditions show that drought is a major cause of hunger in Zambia. However, there is still limited research focusing on specific communities to understand how drought affects household food security at local level.

Areas such as Manyika Ward in Chongwe District depend mainly on rain-fed agriculture, making households highly vulnerable to drought. When rainfall is low, households experience poor harvests, reduced income, and limited access to food, leading to increased hunger. While national statistics highlight the severity of the problem, there is little detailed information on how drought affects household food security in specific wards like Manyika. Therefore, this study seeks to fill this gap by examining the effects of drought on household food security at a local level, in order to support better planning and intervention strategies.

1.3 Objectives

1.3.1 General Objectives

To examine the effects of droughts on household food security; A case study of Manyika Ward.

1.3.2 Specific Objectives

1. To assess how recurrent droughts affect household food availability and access in Manyika.
2. To ascertain the strategies households use to cope with food insecurity resulting from drought.

3. To examine the effectiveness of both local and government interventions in mitigating drought-induced food insecurity.

1.4 Research Questions

1. How do recurrent droughts affect household food availability and access in Manyika?
2. What strategies do household in Manyika use to cope with food insecurity caused by droughts?
3. How effective are local and government interventions in reducing food insecurity due to droughts in Manyika?

1.5 Theoretical Framework

The study is guided by the Food Security Theory, which explains that people are food secure when they have physical, social and economic access to enough safe and nutritious food for a healthy life. The theory is based on seven pillars of food security, namely food availability, food access, food utilization, stability, agency, sustainability and acceptability. Food availability refers to the presence of enough food through farming, markets or aid, while food access focuses on the ability of households to obtain food through income, production or trade (FAO, 2023). Food utilization involves proper nutrition, clean water and health services that allow the body to benefit from food consumed, whereas stability means that food should be available and accessible at all times without interruption from disasters such as droughts and floods (World Food Programme, 2024). Agency refers to the ability of people to make decisions about food production and consumption, sustainability focuses on maintaining food systems for future generations without environmental degradation, and acceptability means that food should meet social and cultural preferences (FAO, 2023). The theory further explains the relationship between drought, climatic conditions and household food security by showing how prolonged dry spells, high temperatures and unreliable rainfall reduce crop yields, destroy livestock and lower household incomes, thereby weakening all seven pillars of food security. Globally, about 333 million people experienced acute food insecurity in 2024 mainly due to climate shocks such as droughts and floods (World Food Programme, 2024). In Africa, recurrent droughts continue to affect food production and access among rural farming households, with over 298 million people facing undernourishment in 2024 (FAO *et al*., 2024). In Sub-Saharan Africa, dependence on rain-fed agriculture has increased household vulnerability to climate change and food shortages during drought periods (Moyo *et al*., 2023). In Zambia, the 2024 drought affected more than 9.8 million people and led to severe maize crop failure in many rural districts, causing hunger and unstable food supplies among households (Government of Zambia, 2024). Therefore, the Food Security Theory is relevant to this study because it helps explain how drought and changing climatic conditions negatively affect household food security in Manyika Ward by reducing food production, household income, nutrition and long-term food stability.

2. Literature Review

2.1 How recurrent droughts affect household food availability and access in Manyika

According to Costlow *et al*. (2024), global food security challenges are increasingly linked to imbalances in food availability and access rather than absolute food shortages. The authors argue that while total food production at the global level may appear sufficient, there are significant disparities in the availability of nutritious foods across regions. These disparities are more pronounced in areas frequently affected by recurrent droughts, where agricultural systems are highly vulnerable to climate variability. As a result, households in such regions experience limited access to diverse and nutrient-rich foods. Recurrent droughts directly reduce household food availability by disrupting agricultural production. The authors explain that drought conditions lead to declining crop yields, reduced livestock productivity, and instability in food supply systems. This is particularly evident in developing countries where farming is largely rain-fed. Consequently, repeated drought events limit the quantity and variety of food produced, thereby reducing the availability of essential food items at the household level.

Costlow *et al*. (2024), food access is also significantly affected by recurrent droughts through economic constraints. The authors note that drought reduces household incomes, especially among smallholder farmers who depend on agriculture for their livelihoods. At the same time, reduced food supply leads to rising market prices, making food less affordable. This creates a situation where food may be physically available in markets but remains inaccessible to households due to financial limitations, a finding also supported by Mbow *et al*. (2019). Another major concern is the decline in diet quality caused by recurrent droughts. The study highlights that global food systems tend to produce more staple foods than nutrient-dense foods such as fruits, vegetables, and protein sources. Drought conditions worsen this imbalance by disproportionately affecting the production of these nutritious foods, leading to reduced dietary diversity and poor nutrition outcomes at the household level.

According to Costlow *et al*. (2024), recurrent droughts have long-term effects on food systems and household resilience. The authors emphasize that repeated exposure to drought weakens agricultural capacity, reduces recovery potential, and contributes to persistent food insecurity. Over time, this results in chronic limitations in both food availability and access, particularly in vulnerable regions. Addressing the impacts of recurrent droughts requires more than increasing food production. The authors recommend a comprehensive approach that includes improving food distribution systems, enhancing market access, strengthening household incomes, and building resilience to climate shocks. This view is consistent with earlier findings by Wheeler and von Braun (2015), who stress the importance of integrated strategies in addressing food insecurity under climate change.

2.2 Strategies households use to cope with food insecurity resulting from drought.

According to Machefer *et al*. (2025), households experiencing food insecurity because of drought shocks adopt a wide range of coping strategies that vary in severity and sustainability. The authors highlight that when rainfall fails and agricultural production declines, many rural households initially resort to reducing meal frequency and eating less preferred or cheaper foods as immediate survival tactics. These strategies help stretch limited food resources but also indicate deepening vulnerability, as they compromise dietary quality and long-term nutritional

adequacy. Similar studies show that rural households in food-insecure contexts commonly reduce portion sizes and consume more affordable staples when faced with production shortfalls or price spikes associated with drought periods, underscoring the widespread use of such short-term responses.

Reliance on social networks and community support is another important coping mechanism for households affected by drought-related food insecurity. Many families temporarily access food from friends, neighbors, or extended relatives when their own supplies run low or when they lack sufficient cash to purchase food. This form of informal food assistance can buffer households against the immediate impacts of drought, allowing them to maintain some level of consumption even when their own production fails. Evidence from rural case studies further confirms the central role of social capital in food security coping, particularly where formal safety nets are weak or absent. (Machefer *et al*., 2025).

According to Machefer *et al*. (2025), households frequently turn to economic strategies to cope with drought-induced food insecurity, such as purchasing food on credit, taking loans, or using savings. These strategies help household's access food when prices rise due to drought, or when their own production provides insufficient supplies and income. However, such strategies can have long-term consequences by increasing indebtedness and reducing future financial resilience. Research on rural food insecurity often highlights how borrowing and using savings are common but potentially risky means of maintaining food access under stress, especially during repeated drought events that erode livelihoods over time.

Asset depletion also emerges as a severe coping strategy when drought conditions persist or intensify. The authors note that households may be forced to sell livestock, tools, or other productive assets in order to secure basic food needs. While effective in the very short term, asset sales undermine future income-generating capacity and heighten vulnerability to subsequent shocks. Studies of rural adaptive behavior under climatic stress report similar patterns, where households exhaust savings or sell off essential assets as a means to cope with food scarcity, ultimately weakening long-term food security prospects. (Machefer *et al*., 2025).

2.3 The effectiveness of both local and government interventions in mitigating drought-induced food insecurity

According to Pedersen (2026), probabilistic early warning systems that inform preparedness can significantly enhance the effectiveness of interventions designed to mitigate drought-induced food insecurity and response actions before food crises intensify. In his development of CERES (Calibrated Early-warning and Risk Estimation System), Pedersen demonstrates how integrating climatic, vegetation, price, and food-security data into a probabilistic forecasting framework enables prediction of acute food insecurity up to 90 days ahead, which can guide both government and local stakeholders in deploying interventions proactively rather than reactively. Such early warning systems are portrayed as powerful tools for strengthening drought preparedness, helping governments and communities to scale up food assistance, water-management planning, and market support before drought impacts reach crisis levels (Pedersen, 2026).

Pedersen (2026) further explains that early warning systems like CERES improve the timing and targeting of drought response interventions by allowing authorities to anticipate conditions that may lead to IPC Phase 3+ (Crisis) and worse food insecurity outcomes. By doing so, governments can optimize the delivery of emergency food aid, cash transfers, and agricultural support before households exhaust their own coping capacities. The model's continuous and transparent forecasting also supports local decision-makers in mobilizing community resources and adjusting local mitigation strategies within weeks of emerging drought signals, which enhances community resilience and reduces the depth and duration of food insecurity episodes. Pedersen argues that such early warning integration can complement longer-term development interventions aimed at building structural resilience, such as irrigation infrastructure and market diversification, thereby improving the effectiveness of both local and national efforts to mitigate drought impacts (Pedersen, 2026). Capacity building, cross-institutional coordination, and data accessibility to be effective must accompany the adoption and operationalization of early warning systems. The integration of multiple data streams precipitation anomalies, vegetation indices, conflict events, price trends, and food consumption scores ensures that early warnings are not only scientifically robust but also actionable. However, he notes that the presence of a forecasting system alone does not guarantee impact; the effectiveness of interventions also relies on how well national and local actors interpret and act on the forecasts. Where governance systems are strong and responsive, early warnings contribute to timely safety net expansions, input support for farmers, and pre-emptive market interventions. In contexts where capacity or coordination is weak, early warnings may not translate into effective mitigation of drought-induced food insecurity, highlighting the need for investments in institutional readiness and community engagement to fully realize the value of advanced warning systems (Pedersen, 2026). While early warning systems like CERES are promising, their true effectiveness can only be assessed through empirical evaluation once interventions informed by the forecasts are implemented and monitored. He emphasizes that establishing real-time impact assessments tracking food security outcomes before and after intervention, deployment is critical to understanding how well early warnings mitigate drought impacts. Pedersen's work points toward a future in which predictive tools, when aligned with robust intervention frameworks, can reduce the severity of drought-induced food insecurity and enhance the capacity of both governments and local communities to respond more effectively to climatic shocks (Pedersen, 2026).

3. Research Methodology

3.1 Research Design

The study will use a descriptive cross-sectional research design, which allows for the collection of data at a single point in time from a sample representing the population. This design is appropriate because it allows the researcher to examine the relationship between drought conditions and household food security without manipulating variables. Both quantitative and qualitative approaches will be used to provide a comprehensive understanding of the problem. Quantitative data will help measure the extent of food insecurity, while qualitative data will capture household experiences, coping strategies, and perceptions regarding

drought. This mixed-methods approach enhances the depth and reliability of the findings.

3.2 Target Population

The target population for this study includes all households in Manyika Ward, located in Chongwe District, Lusaka Province. According to the most recent 2022 Census, Chongwe District had a population of 313,389 people City Population, 2025. While specifically for Manyika Ward, the 2010 Census estimated its population at 10,617. Using Zambia's average annual population growth rate of 2.9%, it is reasonable to assume that the current population is higher. Based on the national average household size of 4.8 persons, Manyika had roughly 2,800 households in 2022. These households form the main unit of analysis for this study, as they are directly affected by drought-related challenges to food access and availability. The target population also includes key local informants such as community leaders, agricultural officers and farmers whose insights will help capture the wider social and institutional responses to drought. Due to fieldwork limitations and the need for in-depth engagement, the study focused on a sample of about 100 households. These were selected based on their vulnerability and exposure to drought, ensuring the findings are both relevant and actionable for the community.

3.3 Sampling Technique

The study will use a multi-stage sampling technique. First, purposive sampling will be used to select Manyika Ward due to its vulnerability to recurrent droughts. Second, simple random sampling will be used to select households within the ward to ensure each household has an equal chance of being included in the study. This method was appropriate because it allowed us to deliberately choose households and key informants who are most affected by drought and have relevant knowledge on food security challenges (Kothari, 2016). The target population consists of households in Manyika Ward, but due to resource and time constraints, a sample size of 100 households was selected. Purposive sampling ensures that participants have direct experience with the effects of drought, making the findings more relevant and reliable (Etikan *et al*., 2016). Additionally, purposive sampling will be used to select key informants such as agricultural officers and local leaders based on their knowledge and experience. This combination of sampling methods ensures both representativeness and relevance of the data collected.

3.4 Sample Size determination

To determine the appropriate number of households for this study, the systematic sampling method was applied using the k-th formula. The formula is expressed as:

$$k = N/n$$

Where:

- k = sampling interval
- N = total number of households in the target population
- n = desired sample size

Based on the target population of 200 households (N=200) and a desired sample size of 100 households (n=100), the formula is applied as follows:

$$k = 200/100=2$$

This means that every second household was selected to participate in the study, after randomly choosing a starting point between household 1 and 2. Using this interval ensures that the sample was evenly spread across the population and minimizes selection bias. It was also simple to implement in the field, especially when working with household listings or maps.

3.5 Triangulation

To order to improve the validity and reliability of the study findings, triangulation will be used. This involves the use of multiple data sources, methods, and perspectives to crosscheck and verify information. The study will triangulate data collected from household questionnaires, key informant interviews, and field observations. Additionally, secondary data from reports and previous studies will be used to support and compare findings. By combining both quantitative and qualitative approaches, the researcher will be able to validate results and reduce potential bias, thereby increasing the credibility of the study.

4. Results/Findings

Presentation of Results on Background Characteristics of Respondents.

4.1 Background characteristics of respondents

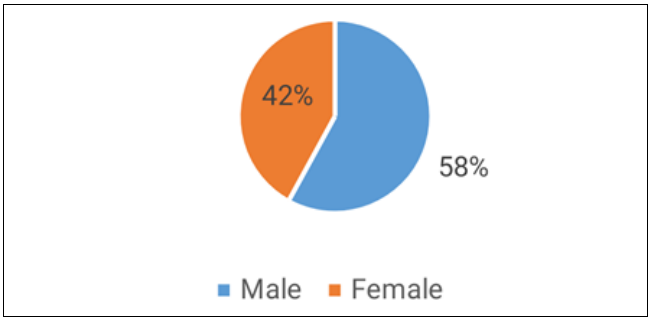


Fig 1: Distribution of respondents by Gender

The findings show that 58% of the respondents were male while 42% were female. This suggests that males constituted the majority of household representatives interviewed, possibly due to their involvement in farming and household decision-making activities.

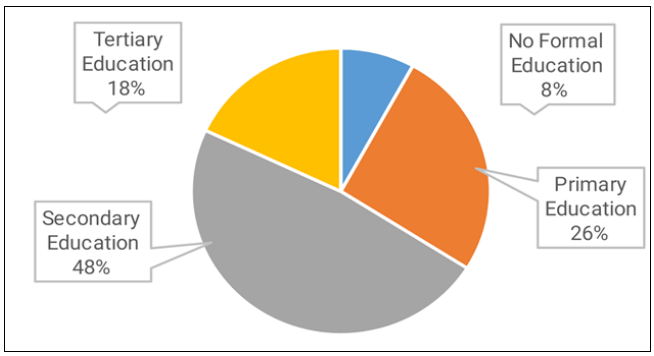


Fig 2: Level of Education

Nearly half (48%) of the respondents had secondary education. This implies that most participants were able to understand and respond effectively to issues relating to drought and food security.

4.2 Effects of Drought on Household Food Security

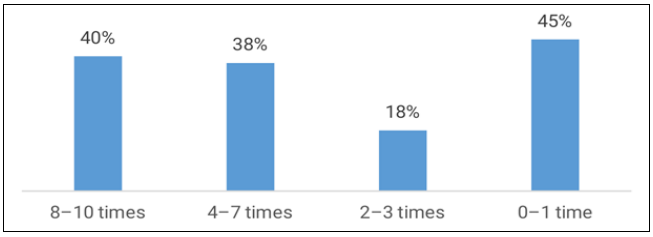


Fig 3: Frequency of Drought Occurrence

Most respondents (78%) indicated that drought occurred between 4 and 10 times during the past decade, suggesting recurrent drought conditions.

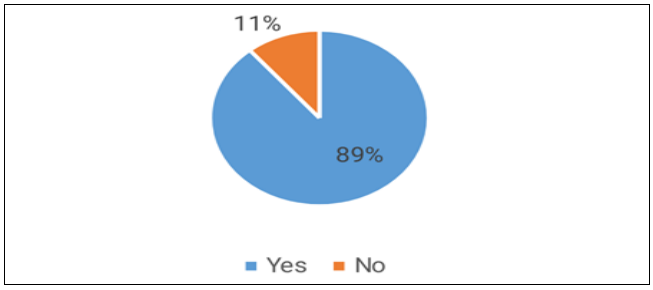


Fig 4: Reduction in Crop Yields

Most respondents (89%) reported reduced crop yields due to drought, indicating a direct impact on household food production.

4.3 Coping Strategies

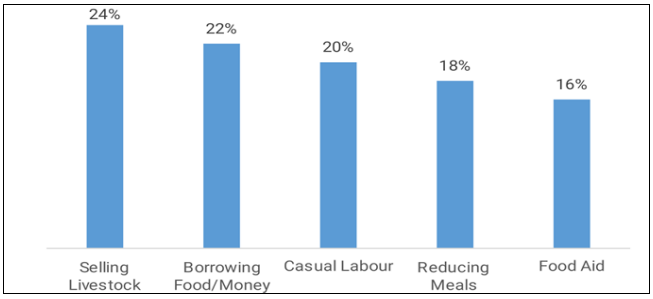


Fig 5: Main Strategy Used During Drought

Selling livestock (24%) was the most common coping strategy, indicating that households often rely on productive assets to survive drought periods.

4.4 Effectiveness of Local and Government Interventions

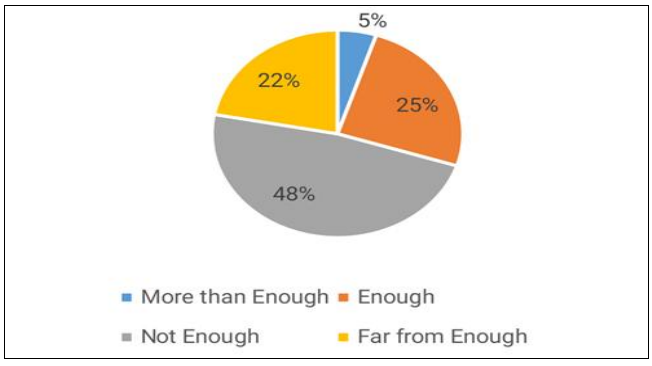


Fig 6: Sufficiency of Assistance

A majority (70%) felt that assistance was either not enough or far from enough, suggesting inadequacy of support provided.

5. Discussions and Findings

The findings of this study indicate that recurrent droughts have had a significant negative effect on household food availability in Manyika Ward. The analyzed data showed that 78% of respondents reported experiencing reduced crop yields due to prolonged dry spells and erratic rainfall patterns, while 15% indicated moderate reductions and only 7% reported minimal effects. These findings suggest that drought has become a major challenge to agricultural production, which is the primary source of food for most households in the area.

The study further revealed that 72% of respondents experienced complete or partial crop failure during severe drought periods. Maize, which is the staple food crop in Zambia, was reported as the most affected crop. Consequently, many households were unable to produce sufficient food to meet their annual consumption requirements. This finding agrees with the Food and Agriculture Organization (FAO), which reported that the 2023/2024 El Niño-induced drought affected over one million hectares of cropped land in Zambia, leading to widespread crop losses and reduced food production (FAO, 2024).

The findings revealed that recurrent droughts have significantly affected household food access in Manyika Ward. Although food may be available in local markets, many households face challenges in obtaining it due to reduced incomes and rising food prices. The analyzed data showed that 76% of respondents reported difficulties in purchasing sufficient food during drought periods, while 18% experienced moderate difficulties and only 6% reported little or no difficulty.

The study further found that 74% of respondents experienced increased food prices during drought periods. Reduced agricultural production often leads to shortages in local markets, causing food prices to rise. As a result, households with limited income struggle to afford adequate food supplies. These findings support FAO (2024), which observed that drought-induced reductions in crop production contribute to food price increases and reduced purchasing power among rural households.

In terms of household income, 71% of respondents reported that drought reduced their earnings from farming activities. Since agriculture is the main source of income in Manyika Ward, poor harvests limit opportunities for selling crops and generating income. Consequently, households become less able to access food through market purchases. Similar findings were reported by the World Bank (2024), which noted that climate shocks such as drought reduce rural household incomes and increase the risk of food insecurity.

The study also established that 68% of respondents reduced the number of meals consumed per day during drought periods. Some households reported skipping meals, while others relied on less nutritious foods to cope with shortages. This finding is consistent with UNICEF (2024), which reported that millions of people in Zambia faced acute food insecurity following the 2023/2024 drought, resulting in reduced food consumption and increased nutritional challenges among vulnerable groups.

The findings of this study show that households in Manyika

Ward use several coping strategies to deal with food insecurity caused by recurrent droughts. The analyzed data revealed that 84% of respondents reduced the number of meals per day during drought periods. Most households reported shifting from three meals a day to two meals or even one meal. This shows that meal reduction is the most common coping strategy used when food is not enough. This finding is supported by the World Food Programme (WFP, 2024), which reported that drought-affected households in Southern Africa often reduce meal frequency as a survival strategy during food shortages.

The study also found that 78% of respondents engaged in casual labor (piecework) such as farming for others, construction work, and small informal jobs to earn money for food. This indicates that households depend heavily on non-farm income when agricultural production fails. The Food and Agriculture Organization (FAO, 2023) explains that rural households often diversify income sources during climate shocks to maintain access to food.

In addition, 73% of respondents reported borrowing food or money from relatives, friends, and neighbors. This shows that social networks play an important role in helping households survive during drought periods. However, the support is often temporary and not always enough to meet household needs.

Furthermore, 69% of respondents reported selling household assets such as chickens, goats, farming tools, and other valuables to buy food. This strategy helps households survive in the short term, but it weakens their long-term economic stability. According to the World Bank (2022), selling productive assets during climate shocks increases long-term vulnerability and poverty among rural households.

The findings also showed that 66% of respondents relied on wild foods and drought-resistant foods, such as wild fruits and traditional vegetables. While this helps reduce hunger, many respondents noted that these foods are not sufficient for a balanced diet.

The findings of this study indicate that local community interventions play a significant but limited role in reducing food insecurity in Manyika Ward. The analyzed data showed that 72% of respondents benefited from village savings groups and community-based financial support systems. These groups helped household's access small loans and savings, which were used to buy food and farm inputs during drought periods. This shows that community financial systems are important in improving short-term food access.

The study further revealed that 70% of respondents benefited from food sharing among relatives and neighbors. This informal support system helped many vulnerable households survive during difficult periods. However, the support was not consistent, especially when drought affected the entire community at the same time. UNICEF (2024) notes that community support systems are important but often weaken during widespread climate disasters because all households are affected simultaneously.

In addition, 65% of respondents reported participation in community gardens and group farming projects. These initiatives helped improve access to vegetables and some food crops, especially during dry seasons. However, respondents noted that limited water supply reduced productivity and sustainability of these gardens.

6. Conclusion

The study concluded that recurrent droughts have significantly affected household food security in Manyika Ward, Chongwe District. The analyzed data showed that 84% of respondents experienced reduced food availability due to poor crop yields, while 72% reported frequent crop failures during drought periods. In addition, 69% indicated that household food stocks are exhausted within a short period after harvest, confirming that drought has severely reduced food production and availability at household level. Furthermore, 67% of respondents reported a decline in agricultural productivity, while 64% indicated that they harvested less than half of their expected crop output during drought years. These findings demonstrate that recurrent drought has become a major threat to household food production and overall food security.

The study also concluded that drought has negatively affected household food access. About 76% of respondents reported difficulty in accessing food, while 74% experienced increased food prices during drought periods. Furthermore, 71% indicated a reduction in household income, making it difficult to purchase food from the market. As a result, 68% of households reduced the number of meals consumed per day, while 65% reported availabilityconsuming less nutritious and less preferred foods due to limited purchasing power. In addition, 62% of respondents indicated that they depended on food purchases for most of the year because their own production was inadequate. These findings suggest that drought has not only reduced food but has also weakened households' economic ability to access sufficient and nutritious food.

The findings further show that households rely heavily on different coping strategies to survive drought conditions. About 82% of respondents reduced meal frequency, 78% engaged in casual labor, and 73% borrowed food or money from relatives and neighbors. In addition, 69% sold household assets to buy food, 66% relied on wild fruits and other natural food sources, while 61% temporarily migrated in search of employment or income opportunities. These findings indicate that most households depend on short-term coping strategies that provide immediate relief but gradually weaken household resilience, reduce productive assets, and increase vulnerability to future droughts.

The study also concluded that local community interventions provide partial support in reducing food insecurity. About 72% of respondents benefited from community-based support systems, including savings groups and food-sharing networks. However, 68% reported that these interventions were insufficient during severe drought periods. Additionally, 63% indicated that community resources become overstretched because many households require assistance simultaneously, while 60% stated that support is often irregular and cannot meet household food needs throughout prolonged drought periods. This suggests that although community initiatives strengthen social support, they have limited capacity to address widespread food insecurity caused by recurrent drought.

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