

# Food Insecurity and Its Determinants among Rural Households in the Southern Region of Lesotho

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**Abstract Background:** Lesotho is grappling with food insecurity and malnutrition. Droughts, floods, poor farming practices, the impact of the COVID-19 pandemic, high food prices, and the Russia-Ukraine war have all played a role in exacerbating food insecurity in the country. Despite the growing worldwide problem of food insecurity, there is a lack of documentation on the status of food insecurity and its determinants at the household level in rural areas of Lesotho. **Aim:** This study aimed to assess food insecurity and its determinants among rural households in the Southern region of Lesotho, with specific attention directed to Quthing, Mohale's Hoek, and Mafeteng. **Methods & Results:** A community quantitative cross-sectional study was conducted, and interview schedules were administered to a sample of three hundred (n=300) rural households. The multiple regression analysis was employed to determine the predictors of household food insecurity. Food insecurity, as measured by Household Food Insecurity Access Scale (HFIAS), was found in a large proportion of rural households (95.3%, n=286). The findings of the study identified the number of children in a household (p<0.05), the marital status of the household head (p<0.05), the availability of land (p<0.05), and borrowing money from informal money lenders (p<0.05) as significant predictors of household food insecurity in the studied regions at p<0.05 significance. **Conclusions and Recommendations:** The study suggests that in light of the high prevalence of food insecurity in rural households in the study area, understanding the determinants of food insecurity in rural households is imperative to combat the rampant food insecurity that plagues rural households in Lesotho. Local authorities must prioritize hunger eradication by enacting practical and sustainable policies that effectively reduce household food insecurity.

**Keywords:** food insecurity, food security, rural households, Lesotho, nutrition

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## 1. Introduction

The issue of food insecurity has emerged as an urgent concern and a top priority in developed as well as developing countries [1]. Food insecurity is a situation that exists when people are unable to access sufficient, safe, and nutritious food and food preferences for a healthier life [2] [3]. [2] highlights the strong correlation between food insecurity and poverty at the global, regional, national, and local levels. According to the most recent estimates from [4], over 783 million individuals, including approximately 12% of the worldwide population, were unable to fulfill their nutritional energy needs on a global scale. According to [5], it is estimated that around one out of every eight individuals globally, has experienced chronic hunger, characterized by inadequate access to food necessary for maintaining an active and healthy lifestyle.

Food insecurity remains pervasive in most Sub-Saharan African nations, including Lesotho. Droughts, floods, poor farming practices, the COVID-19 pandemic, high food

prices, and the Russia-Ukraine war (that negatively affected the availability of food) have all contributed to exacerbating food insecurity in the Sub-Saharan Africa region [4]. In the findings of research published by [4], the prevalence of individuals experiencing undernourishment in Africa is still on the rise. Lesotho is grappling with food insecurity and malnutrition, and recent developments on the global landscape have affected the food security status of the country negatively. Based on the rapid assessment report by [6], it was found that 14% of the population in Lesotho experiences food insecurity. Food insecurity in the Southern Africa Developing Community (SADC) region, including Lesotho, was exacerbated by recurring droughts and floods, inadequate agricultural practices, elevated food costs, and global economic downturns [7]. According to [8], the regions most severely affected in Lesotho are located in the Southern sections of the country, specifically the districts of Mafeteng, Mohale's Hoek, and Quthing.

Food insecurity in the Southern Region of Lesotho represents a persistent and recurring challenge that necessitates thorough investigation and prompt solutions [9]. [9] has also identified the Southern region of Lesotho as being susceptible to child and maternal malnutrition,

including stunting, wasting, and underweight conditions. This region is also prone to HIV/AIDS infection, starvation, dependency, educational dropouts, teenage pregnancy, and the requirement for emergency food assistance, as highlighted in the Lesotho vulnerability report [10]. As noted by [11], a correlation exists between poverty, low literacy rates, and the occurrence of food insecurity and suboptimal nutritional status in rural regions. The Lesotho rural population experiences a higher prevalence of poverty than their urban counterparts [8].

Previous research conducted on food security has predominantly focused on broad aspects of the subject matter [12-14]. The documentation of food insecurity at the household level in rural areas in Lesotho is lacking despite the growing worldwide problem of enhancing food security. No research has been conducted to examine the determinants of food insecurity in these particular rural regions. Hence, the primary objective of this research is to evaluate the prevalence of food insecurity and identify the factors influencing it within rural households in the Southern part of Lesotho, explicitly focusing on the districts of Quthing, Mofale's Hoek, and Mafeteng.

## 2. Methods

### 2.1. Study Setting and Design.

This cross-sectional quantitative study was conducted in the Mafeteng, Mofale's Hoek, and Quthing districts of Lesotho between February 2023 and May 2023. Mafeteng covers an area of 2,119 km<sup>2</sup> and has a population of 178,222 people. This district has 63,832 employed persons and 20,495 unemployed persons. Mafeteng borders the South African province of Free State to the west. Domestically, it borders the districts of Maseru in the Northeast and Mofale's Hoek in the Southeast [15].

Mofale's Hoek has a population of 165,590 people and an area of 3,530 km<sup>2</sup>, according to the [16]. This district has 55,575 employed people and 15,732 unemployed people. Mofale's Hoek borders the South African provinces of Free State and Eastern Cape in the Southwest, while it borders Mafeteng district in the Northwest, Maseru district in the North, Thaba-Tseka district in the Northeast, Qacha's Nek district in the east, and Quthing district in the Southeast [16].

The district of Quthing has a land area of 2,916 km<sup>2</sup> and a population of 115,469. This district has 31,301 employed persons and 11,654 unemployed persons. The Southern region includes the districts of Mofale's Hoek, Mafeteng, and Quthing; which were more affected by the 2016 drought than other districts of Lesotho. These regions are predominantly rural [6], which makes them appropriate for the study, since they depict rural characteristics of food security challenges in Lesotho.

### 2.2. Sampling Procedure

The study employed a multi-stage sampling approach.

#### 2.4. Sampling Size Determination.

A random sampling technique was employed in selecting a sample of 100 rural households from each of the three districts of the Southern region.

The sample size was determined using Slovin's formula, mathematically represented by the equation:

$$n = \frac{N}{1 + ne^2} \quad (1)$$

The variable "n" denotes the sample size of 300 households in the present context. The margin of error, represented as e, is equivalent to 5%. The variable N denotes the estimated entirety of the population of rural households.

### 2.5. Outcome

The primary variable of concern in the study was food insecurity. The HFIAS responses generate a continuous score ranging from 0 to 9. Based on the obtained score, households can be categorized into four distinct groups: food secure, mildly food insecure, moderately food insecure, or severely food insecure.

### 2.6. Data Analysis

After data collection, the data were coded and entered into Statistical Package for Social Sciences (SPSS) software for Windows version 20. Hereafter, data were cleaned and verified for analysis. The descriptive analysis method was used to describe data collected from sample households. Then, the results of the data analysis were presented by creating a frequency and percent table format of variables. Descriptive statistical analysis was carried out through cross-tabulation by frequency and percentage. Multiple regression analysis was used to analyze relationships between continuous dependent variable and independent variables. In this case, multiple independent variables were presented simultaneously to predict food insecurity. Significance was set at  $p < 0.05$ .

### 2.7. Ethical Considerations

In order to ensure the protection of the participants, the researchers acquired approval from various authorities, including the village head, the Ministry of Health Lesotho, and the NUL-Institutional Review Board, to conduct the study. The survey exclusively comprised individuals who expressed their willingness to participate, and their identities remained undisclosed; ensuring anonymity and confidentiality. The participants were provided with a comprehensive rationale for the study's significance, emphasizing that their involvement would substantially contribute to the development of national policy.

## 3. Results

### 3.1. Sample Characteristics

Table 1 presents some basic descriptive statistics of the socioeconomic and demographic characteristics of the households in the studied rural regions of Lesotho. Out of 300 respondents, (95.3%,  $n=286$ ) were food insecure, while the rest were food secure. Of 300 households, (57.7%,  $n=173$ ) were male-headed, and the rest were female-headed. Although this difference did

not reach a statistical difference ( $p>0.05$ ), compared to male-headed households (94.8%), a higher proportion of female-headed households (96.1%) were food insecure. More than one quarter (37%,  $n=111$ ) of the participants were aged 62 years old and above. Food insecurity was more prevalent in households with heads aged 18-28 (100%) than in households headed by members aged 29 and above. Most participants were married (52.3 %,  $n=157$ ). All (100%,) households that were headed by a divorced household head were food insecure. A higher proportion of participants had a primary education (48.0%,  $n=144$ ). Half (50%,  $n=150$ ) of the participants were physically fit. More than a quarter (36.7%,  $n=110$ ) of households had 2-4 children. Most households had a total of 4-6 members. Most households (68.0%,  $n =204$ ) borrowed money from informal lenders. The results revealed that the respondents who did not borrow money from informal money lenders had a more significant proportion of food security (9.4%) than those who borrowed money from informal money lenders (2.5 %,  $p=0.008$ ). A greater proportion (48%,  $n=144$ ) of household heads had a primary education. The findings of this research confirmed that household heads that had a tertiary level education (6.7%) had a higher proportion of food security as compared with household heads that had no education (5.0%), primary education (5.6%), and secondary education (2.8%), even though these differences were not statistically significant. According to the results, respondents with larger land sizes had significantly higher food security than those with smaller land sizes ( $p=.023$ ). Participants with livestock had significantly higher food security than those who did not own livestock (7.9 % vs. 1.8 %,  $p=.003$ ). No significant associations were found between food security and other factors, including household head age, household head gender, marital status, education, number of children in the household, household size, health, and participation in local trade.

### 3.2. Assessment of Food Insecurity

The results of Household food insecurity as measured by the Food Insecurity Access Scale are presented in Table 2. Findings reveal that, out of 300 households, the majority of the households (77.3%) experienced very low food security, 18% low food security, 2.3% marginal food security, and only 2.3% experienced high food security. Thus, 4.6% of the households in Mafeteng, Quthing, and Mohale's Hoek were food secure, and 95.3% were food insecure.

**Table 2. Food Security Category**

Food insecurity category	Frequency(n)	Percentage (%)
High Food Security (HFS)	7	2.3
Marginal Food Security (MFS)	7	2.3
Low Food Security (LFS)	54	18.0
Very Low Food Security (VLFS)	232	77.3
Total	300	100

Source: Field survey, 2023

**Table 1 Sociodemographic Characteristics of Households in the selected districts**

Variable	Frequency (n=300)	Percent	% Food Secure (n=14)	% Food Insecure (n=286)	P- Value
HH Head					
Age					
18-28	7	2.3	0.0	100	
29-39	46	15.3	6.5	93.5	
40-50	40	13.3	2.5	97.5	.680
51-61	96	32.0	3.1	96.9	
62 and above	111	37.0	6.3	93.7	
HH Gender					
Male	173	57.7	5.2	94.8	.609
Female	127	42.3	3.9	96.1	
Marital Status					
Single	41	13.7	2.4	97.6	
Married	157	52.3	3.8	96.2	
Divorced	28	9.3	0.0	100.0	.117
Widowed	74	24.7	9.5	90.5	
Education					
Primary	144	48.0	5.6	94.4	
Secondary	106	35.3	2.8	97.2	
Tertiary	30	10.0	6.7	93.3	.742
None	20	6.7	5.0	95.0	
Number of Children in HH					
0-1	87	29.0	6.9	93.1	
2-4	110	36.7	2.7	97.3	.385
>5	103	34.3	4.9	95.1	
HH Size					
0-3 members	100	33.3	2.0	98.0	
4-6 members	151	50.3	5.3	94.7	.214
7 and more members	49	16.3	8.2	91.8	
Land Size (hectars)					
2-3 hectars	123	41.0	1.4	98.6	
4 and more hectars	108	36.0	2.8	97.2	.023
69	69	23.0	8.1	91.9	
Land Availability					
No	94	31.3	2.4	97.6	.006
Yes	206	68.7	9.6	90.4	
Livestock					
No	127	42.3	1.8	98.2	.003
Yes	173	59.7	7.9	92.1	
Borrowing Money					
No	96	32.0	9.4	90.6	0.008
Yes	204	68.0	2.5	97.5	
Health					
Physically fit	150	50.0	5.3	94.7	
Disabled	14	4.7	7.1	92.9	.733
Other	136	45.3	3.7	96.3	
Participation in Local Trade					
No	94	31.3	6.4	96.1	.343
Yes	206	68.7	3.9	95.3	

Source: Field survey, 2023

### 3.3. Determinants of Household Food Insecurity

A multiple regression analysis was conducted to predict food insecurity and various potential predictors. Table 3 summarizes the analysis results. The multiple regression

model was significant, and the F-statistic indicates the goodness of fit of the model since its p-value is significant; the  $R^2$  of the model shows that the independent variables explain 13.4 percent of the variance in the dependent variable (food insecurity);  $F(12,286) = 3.76$ ,  $P < 0.05$ . Adjusted  $R^2 = .096$ ,  $R^2 = .134$ . As seen in Table 3., the analysis reveals that the number of children in a household had a significantly positive influence on household food insecurity ( $\beta = .139$ ,  $t = 2.450$ ,  $CI = .022, .198$ ,  $p < 0.05$ ), Marital status of household head had a significantly negative influence on household food insecurity ( $\beta = -.119$ ,  $t = -2.110$ ,  $CI = -.144, -.005$ ,  $p < 0.05$ ), Land availability ( $\beta = .252$ ,  $t = 3.079$ ,  $CI = .123, .560$ ,  $p < 0.05$ ), and Borrowing money from informal money lenders ( $\beta = .153$ ,  $t = 2.227$ ,  $CI = .024, .389$ ,  $p < 0.05$ ) significantly predicted household food insecurity in the studied regions at  $p < 0.05$ . There was no evidence of the influence of Household age, education, health, land size, livestock availability, gender of household head, and participation in local trade on household food insecurity among the studied population.

**Table 3. Regression Analysis Summary for Food Security Determinants**

Variable	B	95% CI	$\beta$	t	p
(Constant)	3.134	[2.640, 3.628]		12.490	.000
HH Head Age	-.057	[-.120, .006]	.103	-1.776	.077
Number of Children in HH	.110	[.022, .198 ]	.139	2.450	.015
Education	.008	[-.071, .087]	.012	.205	.838
Marital Status	-.074	[-.144, -.005]	.119	-2.110	.036
Health	.065	[-.007, .137]	.101	1.780	.076
Land Availability	.342	[.123, .560 ]	.252	3.079	.002
Land Size	-.032	[-.161, .096]	.040	-.493	.623
Livestock	-.028	[-.179, .123]	.023	-.366	.714
HH Size	.048	[.048, .144 ]	.056	.981	.327
Gender HH	.133	[-.014, .279]	.104	1.783	.076
Participation in local trade	.052	[-.132, .236]	.038	.557	.578
Borrowing Money	.207	[.024, .389 ]	.153	2.227	.027

Source: Field survey, 2023

## 4. Discussions

The main objective of this study was to evaluate the occurrence of food insecurity and ascertain the variables that contribute to it among rural households in the Southern Region of Lesotho. Despite Lesotho's commitment to eliminating severe poverty by 2030, the research findings indicate that a significant proportion (95.3%) of households in the sampled region continue to experience food insecurity. The participant's responses to the items on the household food insecurity access scale were broadly in line with what was anticipated. This suggests that Lesotho is grappling with severe food insecurity. The heightened prevalence of this phenomenon in the Southern region of Lesotho may possibly be

ascribed to the cyclical nature of droughts and floods, inadequate agricultural practices, rising food costs, and global economic downturns [7] [18]. In accordance with the research conducted by [8], it has been observed that the regions in Lesotho most affected by food insecurity are located in the Southern parts of the country, namely in the districts of Mafeteng, Mohale's Hoek, and Quthing. The current findings are consistent with those reported by [19] and [5], which documented a prevalence rate of 68.4% and 71.6%, respectively, concerning food insecurity among rural households in Southern Ethiopia. Similar findings were also observed in research done by [20-22] in rural households in Tanzania, South Africa, and Iran respectively. These findings emphasize the prevalent nature of food insecurity in rural households.

The analysis of sociodemographic variables indicates that males head a majority (57.7%) of rural farming households. Although there was no statistically significant difference ( $p > 0.05$ ), it is worth noting that a slightly larger percentage of female-headed households (96.1%) experienced food insecurity compared to male-headed households (94.8%). The potential justification for the prevalence of male dominance over females in agricultural contexts is the physical demands associated with farming tasks, which may exceed the capabilities of many females. This observation aligns with the research conducted by [23,24]. In contrast, findings by [25] revealed a favorable correlation between the ownership of non-agricultural firms managed by women and the levels of food accessibility and availability within families headed by women. However, it is essential to note that in the present study, women did not possess ownership or control over the means of production and were subordinate to their husbands, who were employed in the mining industry and other workplaces in South Africa. The observed disparity might potentially be attributed to cultural norms and behaviors that often limit women's opportunities to access resources and engage in many aspects of the food system, including production, preparation, processing, distribution, and marketing [26,27]. These limitations often hinder women's ability to achieve food security and adequate nutrition.

Moreover, a significant proportion of rural household heads (37%) were aged 62 and above. This suggests that a significant proportion of household heads exhibit limited agility, energy and are past their prime working years, potentially exerting a detrimental impact on their food security status. The statement mentioned above presents a comparison between the results obtained by [5] [19] [28]. The Chi-square analysis indicates livestock ownership was significantly and positively associated with food insecurity at a p-value of 0.005. This association suggests that households that owned livestock had more food security than those that did not (7.9 % vs. 1.8 %,  $p = .003$ ). These findings are consistent with a previous study revealing that livestock possession is crucial to reducing food insecurity [29]. According to this study, the lack of livestock is one of the fundamental factors affecting food insecurity in the study area.

The study's results also indicated that rural households with larger land sizes exhibited a greater food security prevalence than those with smaller land sizes ( $p = .023$ ). This assertion is corroborated by the findings of prior

research conducted by [19] [30,31], which indicates that within the context of subsistence agriculture, the size of cultivated land has significant implications for household food security. The research examining the correlation between food insecurity and land size has shown variations in the land sizes analyzed. However, it can be deduced that the size of land tenure is a significant determinant of agricultural productivity, influencing both the selection of crops cultivated and the magnitude of crop yields. Hence, in the context of subsistence agriculture, the amount of land holdings is anticipated to impact the food security of farm households substantially. In the current investigation, the majority of families exhibited reduced land holdings.

The multiple linear regression analysis results indicate that the number of children in a household has a significant positive influence on the household food insecurity ( $\beta=.139$ ,  $t=2.450$ ,  $CI=.022$ ,  $.198$ ,  $p<0.05$ ). This finding indicates that an increase in the number of children residing in a household is associated with a higher likelihood of experiencing food insecurity. The results mentioned above align with prior research conducted in various settings, which have shown that the presence of children within households is significantly linked to food insecurity, even after controlling for sociodemographic factors and indicators of socioeconomic level [32,33]. This suggests that when the number of children in a home grows, there is a corresponding rise in the demand for food, resulting in a higher prevalence of food insecurity among individuals in that household. In contrast, research done in South Africa revealed that the number of children residing in a home did not have any significant impact on the level of food security experienced [34].

The results indicate that the marital status of the household head had a statistically significant negative impact on household food insecurity ( $\beta=-.119$ ,  $t=-2.110$ ,  $CI=-.144$ ,  $-.005$ ,  $p<0.05$ ). This suggests that homes with married couples are less likely to experience food insecurity. This finding aligns with the prior research conducted by [35]. This phenomenon might perhaps be attributed to the existence of a cooperative effort or partnership in agricultural activities between male household heads and their female counterparts. In the present investigation, it was observed that a significant majority (89.44%) of household heads in rural farming communities were married. This finding suggests that the majority of household heads were of mature age and had the necessary responsibility to provide for their families. Furthermore, it can be inferred that these individuals possessed a comprehensive understanding of the welfare of their households. Marital status fosters a feeling of responsibility since it necessitates dedication to one's occupation to fulfill the family's demands. As a result, this would lead to an increase in production and an improvement in their food security situation.

The results revealed that Land availability ( $\beta=.252$ ,  $t=3.079$ ,  $CI=.123$ ,  $.560$ ,  $p<0.05$ ) significantly influences food insecurity. This suggests that families with agricultural land were more inclined to achieve food security. According to the findings of [30,31] [36], the direct cultivation of land by households has a significant impact on food production and subsequently influences

food security. Within the designated research domain, the phenomenon of population expansion has engendered a notable degree of land fragmentation, hence making the acquisition of large agricultural plots more difficult. The expansion of cultivated lands has been shown to have a significant impact on agricultural output since it leads to a substantial rise in food production [31].

Borrowing money from informal rural money lenders ( $\beta=.153$ ,  $t=2.227$ ,  $CI=.024$ ,  $.389$ ,  $p<0.05$ ) significantly predicted household food insecurity in the studied regions at  $p<0.05$ . This suggests that households that borrowed money from informal money lenders were more likely to be food insecure than households that did not borrow money from informal money lenders. This is in line with a study conducted by [37]. This may be attributed to the fact that poor farmers often eroded assets by borrowing money from informal rural money lenders by more than 75% interest rate per month repayment rate. In this case, money lenders extracted economic surplus, such as poor farmer labor, capital, and possibly land. In contrast, [19] state that credit for the consumption or purpose of agricultural inputs like improved seeds and chemical fertilizer improves the food security status of households. This might be because households with the opportunity to receive credit would build their capacity to produce more by purchasing and using agricultural inputs. However, in this study, credit use increased food insecurity probably because of increased interest, which they may not afford to pay back, as more than half (68.3%) of households borrowed money from informal rural money lenders. The multifaceted nature of the relationship between borrowing funds from informal money lenders and food security in rural families is contingent upon many aspects including the specific nation in question, the nature of the informal loan arrangement, and the level of financial literacy shown by the household.

Previous studies have identified the factors that significantly impact a household's food insecurity. These factors include the educational attainment [9] [19] [38], age [19] [39], and gender of the head of the household [23-25], as well as their participation in local trade [9]. However, the present study found no evidence indicating that these factors have a significant influence on household food insecurity. Furthermore, the health status of the household head was also found to have no predictive value in determining food insecurity in this population. This finding is consistent with the results of other scholars [40]. While previous studies [9] [19] [38] have emphasized the crucial role of education in determining food security, the present study found no significant impact of education on household food insecurity. The underlying premise suggests that individuals with advanced levels of education are more likely to acquire higher-paying jobs, which leads to enhanced food security. This phenomenon is more relevant in urban areas with a large number of individuals with formal education [40]. However, in rural regions of Lesotho, where many students discontinue their education at primary and secondary levels, the importance of education diminishes. Despite the commonly held expectation that individuals with higher levels of education possess more capacity to manage their food resources and generate a substantial income, this assumption does not hold true in the context of Lesotho, where a high incidence of

unemployment exists. The lack of a statistically significant correlation between educational attainment and household food insecurity in this study may be attributed to the prevalence of respondents with intermediate levels of education and the relatively even distribution of educational levels among the surveyed households. Overall, the findings of this study suggest that the determinants of food insecurity in Lesotho are complex and multifaceted, and that further research is necessary to fully understand the underlying factors that contribute to this issue.

The study had several strengths that contributed to its reliability and validity. Firstly, the use of a large sample size of 300 rural households ensured that the study's findings were reflective of the population in the Southern region of Lesotho. Furthermore, the standardized tool, the HFIAS, was employed to measure the level of household food insecurity, which improved the study's reliability and validity. The study provided valuable information on the determinants of food insecurity in rural households in the Southern region of Lesotho, which can be used to inform policy and interventions to address the issue. However, the study had certain limitations that should be considered. The study was conducted in only three districts in the Southern region of Lesotho, which limits the generalizability of the findings to other regions in the country. Additionally, the cross-sectional design employed in the study cannot establish causal relationships between the predictors and food insecurity.

## Implication to Research and Practice

This research will provide empirical evidence about the prevalence and underlying factors contributing to food insecurity among rural families. Identifying and comprehending factors contributing to food insecurity can provide valuable insights for policymakers, planners, and governmental and non-governmental organizations involved in food security programs. This knowledge can inform the adaptation and reevaluation of interventions aimed at addressing food security issues and facilitate the implementation of targeted measures to address the root causes of food insecurity. Although aggregate data is commonly accessible on a national scale, more investigation is necessary to comprehend the issue of food security, specifically among rural households. The issue of food insecurity in Lesotho primarily manifests itself within rural regions.

## Conclusion and Recommendations

The present study highlighted that the critical determinants of food insecurity were the land availability, number of children in a household, borrowing money from informal rural money lenders, and marital status of the household heads in the studied rural households. The study's findings revealed that 95.3% of the households were food insecure. The research indicates that given the significant occurrence of food insecurity in rural families within the study region, it is crucial to address the widespread food insecurity affecting rural households promptly and decisively in Lesotho. It is imperative for

local authorities to place utmost importance on the elimination of hunger via the implementation of pragmatic and sustainable policies that successfully mitigate household food insecurity. In order to achieve this objective, it is essential to build a comprehensive framework that facilitates the allocation of agricultural land, enhances community nutrition, and encourages cooperation between governmental entities and non-governmental organizations (NGOs). The collaboration of national and regional government entities, in conjunction with non-governmental groups, is necessary to enhance agricultural commerce and expand land accessibility. This collaborative effort is crucial for increasing production and mitigating the issue of food insecurity.

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## Institutional Review Board Statement

The National University of Lesotho Institutional Review Board and the Ministry of Health in Lesotho both authorized this research.

## Informed Consent Statement

Before starting data collection, participants were informed about the research objective and the consequent statistical analysis. Participation in the study was entirely voluntary and anonymous; subjects could also withdraw from the survey at any time and for any reason.

## Data Availability Statement

The archived data, and all the elaboration and analysis generated and used to present results in this study are fully available on request from the corresponding author.

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