

**ASSESSING THE RELATIONSHIP BETWEEN POVERTY, HUNGER AND
MALNUTRITION IN THATIKANDH RURAL MUNICIPALITY, DAILEKH**

A Thesis

Submitted to

Faculty of Humanities and Social Science,

Central Department of Rural Development, Tribhuvan University

In Partial Fulfillment of the Requirements for the

Degree of Masters of Arts (MA)

In

Rural Development

Submitted By

TEJENDRA CHAND

TU, Registration No: 2-37-236-2011

Exam Roll No: 0006502

Central Department of Rural Development

Tribhuvan University, Kathmandu

September 2023

DECLARATION

I hereby declare that this research entitled "**Assessment the Relationship Between Poverty, Hunger, and Malnutrition in Thatikandh Rural Municipality, Dailekh**" submitted to the Central Department of Rural Development, Tribhuvan University, is entirely my original work prepared under the supervision of this thesis to the made due acknowledgments to all ideas and information borrowed from different sources in course of preparing this thesis. The results of this thesis have not been submitted anywhere else for the award of any degree or for any other purposes. I assure that no part of the content of this thesis has been published in any form before and shall be solely responsible if any evidence is found against my declaration.

Tejendra Chand

Tribhuvan University

TU Reg: 2-37-236-2011

Date: 2080/5/22

8 September 2023

RECOMMENDATION LETTER

This thesis entitled "**Assessment the Relationship Between Poverty, Hunger, and Malnutrition in Thatikandh Rural Municipality, Dailekh**" has been prepared by Tejendra Chand under my guidance and supervision in partial fulfillment of the requirement of the Degree of Master of Arts in Rural Development. I hereby recommend this thesis to the evaluation committee for final evaluation and approval.

Associate Prof. Bishnu Bahadur Khatri

Thesis Supervisor

Central Department of Rural Development, Kirtipur, Kathmandu

Date: 2080/05/24

10 September 2023

APPROVAL LETTER

The thesis entitled "**Assessment the Relationship Between Poverty, Hunger, and Malnutrition in Thatikandh Rural Municipality, Dailekh**" submitted by **Mr. Tejendra Chand** in partial fulfilment of the requirement for the Master's Degree (M.A) in Rural Development has been evaluated and approved by the committee.

Evaluation Committee

.....
Associate Prof. Bishnu Bahadur Khatri
Head of Department & Supervisor

.....
Assistant Prof. Prajwal Man Pradhan
External Examiner

.....
Associate Prof. Dr. Umesh Prasad Acharya
Member

Date: 2080/05/29

15 September 2023

ACKNOWLEDGEMENTS

This study entitled "**Assessment the Relationship Between Poverty, Hunger, and Malnutrition in Thatikandh Rural Municipality, Dailekh**" has been prepared for partial fulfillment of a master's degree in rural development.

First of all, I feel privileged to have Associate Prof. Bishnu Bahadur Khatri, Central Department of Rural Development as my thesis guide. Without his constructive comments, untired help, guidance, valuable suggestions, continued inspiration and feedback, this thesis would never have taken this shape. Again, I would like to express my gratitude to Associate Prof, Bishnu Bahadur Khatri, Head of Department, Central Development of Rural Development, Tribhuvan University for providing an opportunity to carry out this thesis.

I am extremely thankful to Mr. Nim Bahadur Khatri, Chief Administration Officer, Mr. Rabindra Bhandari, Head of Health Unit, Netra Bahadur Thapa, Head of Education Unit, Mrs. Sarada Rawat, Head of Women and child Development Unit and Mrs. Kalpana Dasaudi, MIS operator of Thatikandh Rural Municipality, Dailekh and all other Thatikandh Rural Municipality community people for their cordial support. I would also like to thank Mr. Hari Shahi, Palika IT Officer, for his support and Dr. Rajan Binayak Pasa, Assistance Professor- TU, during the data collection. My sincere appreciation also goes to Laxmi Shahi, Pabitra Upadhyaya, Dinesh Thapa and Mohan Thapa who supported me through the data collection and my research.

I am deeply obliged to my parents for their love and encouragement in completing this thesis. My father Dasarath Chand, mother Kamala Kumari Shahi and to my wife Bhumika Malla for her inspiration. I would like to express many thanks to all of my colleagues for their help, inspiration and co-operation during my college time and preparing of my thesis.

Tejendra Chand
Kathmandu, Nepal
September 2023

TABLE OF CONTENTS

DECLARATION	ii
RECOMMENDATION LETTER	iii
APPROVAL LETTER	iv
ACKNOWLEDGEMENTS	v
LIST OF TABLES	ix
LIST OF FIGURES	x
ABBREVIATION/ACRONYMS	xi
ABSTRACT	xii
CHAPTER ONE: INTRODUCTION	1
1.1 Background of the Study	1
1.2 Statement of the Problem	4
1.3 Objective of the Study	5
1.4 Significance of the Study	5
1.5 Limitation of the Study	5
1.6 Organization of the Study	6
1.7 Operational Terminologies	6
CHAPTER TWO: LITERATURE REVIEW	8
2.1 Conceptual Review	8
2.2 Historical Review	10
2.3 Theoretical Review	12
2.3.1 Vicious Circle of Poverty	12
2.3.2 Food Security	13
2.4 Policy Review of Poverty, hunger and Malnutrition	14
2.5 Empirical Review	16
2.6 Conceptual Framework	19
CHAPTER THREE: RESEARCH METHODOLOGY	22
3.1 Research Design	22
3.2 Selection of the Study Area	22
3.3 Universe, Sampling and Sampling Procedure	23
3.3.1 Sampling Procedure	23
3.4 Data Collection Techniques and Tools	24
3.4.1 Household Survey	24
3.4.2 Key Informant Interview	24

3.4.3 Focus Group Discussion	24
3.5 Data Analysis Techniques and Tools	25
CHAPTER FOUR: ANALYSIS AND INTERPRETATION OF FIELD SURVEY DATA	26
4.1 General Information of the Sampling Frame	26
4.1.1 Caste & Ethnicity Distribution	26
4.1.2 Age group Distribution	27
4.1.3 Gender Status	27
4.1.4 Marital Status	28
4.1.5 Educational Status	28
4.1.6 Employment Status	29
4.1.7 Land Possession (in Ropanies)	30
4.1.8 Type of Houses	30
4.2 Examination of Food Security Situation	31
4.2.1 Food Security Situation: Availability	31
4.2.2 Food Security System: Accessibility	32
4.2.3 Food Security Situation: Stability	33
4.2.4 Food Security Situation: Utilization	34
4.3 Assessing the Factors Associated with Food Security	36
4.3.1 Factors of Food Security: Community Level	37
4.3.2 Factors of Food Security: Family Level	38
4.3.3 Factors of Food Security: Individual Level	39
4.4 Causal Relationship Between Poverty, Hunger and Malnutrition	41
4.4.1 Food Sufficiency Duration	41
4.4.2 Monthly Household Income	42
4.4.3 Status of Livestock (Quantity)	42
4.4.4 Status of Livestock (Market Value)	43
4.4.5 Status of Agricultural Production (Quantity)	43
4.4.6 Status of Agricultural Production (Market Value)	43
4.4.7 Family Income Status	44
4.4.8 Loan Status and Interest Rate	45
4.4.9 Family Expenditure	45
4.4.10 Balance Diet Consumption	46
4.4.11 Malnourishment status	47

4.4.12 Importance of Balanced Diet	48
4.4.13 Poverty and Hunger Influencing	48
4.4.14 Poverty and Hunger Influencing each Other	49
CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATION	51
5.1. Summary	51
5.2. Conclusion	51
5.3. Recommendation	52
REFERENCES	54
Annex I: Questionnaires	
Annex II: Interview Questionnaires	
ANNEX III- KII Guideline	
Annex IV- FGD Agendas	
ANNEX V- Photo Gallery	

LIST OF TABLES

	Page Number
Table 1: Conceptual Framework of Food Security and Poverty	23
Table 2: Distribution of the Respondents in Type of Houses	30
Table 3: Distribution of the Respondents in Food Availability	31
Table 4: Distribution of the Respondents in Food Accessibility	32
Table 5: Distribution of the Respondents in Food Stability	33
Table 6: Distribution of the Respondents in Food Utilization	34
Table 7: Distribution of the Respondents with Factors of Food Security: Community Level	37
Table 8: Distribution of the Respondents with Factors of Food Security: Family Level	38
Table 9: Distribution of the Respondents with Factors of Food Security: Individual Level	39
Table 10: Livestock Rearing Households	42
Table 11: Distribution of the Respondents Status of Livestock Production	42
Table 12: Distribution of the Respondents Status of Livestock Production	43
Table 13: Distribution of the Respondents Status of Agriculture Production	43
Table 14: Distribution of the Respondent Status of Agriculture Production	43
Table 15: Sufficiency of Food Production	44
Table 16: Distribution of the Respondents Status of Loan Possession and Interest Rate	45
Table 17: Distribution of the Respondents Status of Family Expenditure	45
Table 18: Distribution of the Respondents Status of Balanced Diet Consumption	46

LIST OF FIGURES

	Page Number
Figure 1: Conceptual Framework of food security and poverty	13
Figure 2: Four Pillars of Food Security	14
Figure 3: Conceptual Framework of food security and poverty	20
Figure 4: Distribution of the Respondents in Cast/ Ethnicity	26
Figure 5: Distribution of the Respondents in Age Group	27
Figure 6: Distribution of the Respondents in Gender Group Status	27
Figure 7: Distribution of the Respondents Marital Status	28
Figure 8: Distribution of the Respondents in Education Status	28
Figure 9: Distribution of the Respondents in Employment Status	29
Figure 10: Distribution of the Respondents in Land Possession Status	30
Figure 11: Distribution of the Respondents Status of Food Sufficiency Duration	41
Figure 12: Distribution of the Respondents Status of Household Income	42
Figure 13: Distribution of the Respondents Status of Family Income	44
Figure 14: Distribution of the Respondents Status of Malnourishment	47
Figure 15: Distribution of the Respondents Status of Balanced Diet Awareness	48
Figure 16: Distribution of the Respondents Status of Interconnection between Poverty and Malnutrition	49

ABBREVIATION/ACRONYMS

ACF-Nepal	:	Action Against Hunger Nepal
EDHS	:	Nepal Demographic and Health Surveys
FAO	:	Food and Agriculture Organization
HDSS	:	Household Dietary Diversity Score
HDI	:	Human Development Index
LDC	:	Least Developed Country
MCA-Nepal	:	Malnutrition Control and Advocacy in Nepal
MDGs	:	Millennium Development Goals
MoF	:	Ministry of Finance (Government of Nepal)
MoHP	:	Ministry of Health and Population (Government of Nepal)
MPI-Nepal	:	Multidimensional Poverty Index for Nepal
NAPA	:	Nepal Agriculture Policy and Action
NDHS	:	Nepal Demographic and Health Surveys
NEKSAP	:	Nepal Food Security Monitoring System
Nepal GHI	:	Nepal Global Hunger Index
NHDSS	:	Nepal Health and Demographic Surveillance System
NHSS	:	Nepal Health Sector Strategy
SDGs	:	Sustainable Development Goals
SUN-Nepal	:	Scaling Up Nutrition in Nepal
TFR	:	Total Fertility Rate
UNDP	:	United Nations Development Programme
WASH	:	Water, Sanitation and Hygiene
WFP	:	World Food Programme

ABSTRACT

The thesis entitled "**Assessing the Relationship between Poverty, Hunger and Malnutrition in Thatikandh Rural Municipality**" has been prepared to analyze the relationship between status of the poverty and malnutrition, in the marginalized people of Thatikandh Rural Municipality wards no 1, 2, and 6 in Dailekh district. The use of three objectives including i) to examine food security situation of community people, ii) assessing the factors associated with food security status, and iii) analysis of the causal relationships between poverty, hunger and malnutrition have been used to tackle the main title in this research. This research plan investigates poverty, hunger, and malnutrition in Thatikandh Rural Municipality, Nepal, using a descriptive research design. It employs a mix of quantitative and qualitative methods, including Household Surveys, Key Informant Interviews, and Focus Group Discussions. The study focuses on Wards 1, 2, and 6, with a sample of 108 households. Data analysis applies grounded theory and induction to draw broader conclusions about poverty and food security, aiming to inform policy and action in the community.

Examining the food security situation of Thatikandh Rural municipality, the four major indicators as availability, accessibility, stability and utilization shows that the people living in ward 1, 2 and 6 of this rural municipality are facing major problem of food insecurity as they are deprived of sound availability, accessibility, stability as well as utilization. The poverty of the people of these areas have been main cause for creation of insecurity. With the insecurity in food, there are certain factors that are the reasons. The food pricing system, network of infrastructure and social support system are main reasons in community level. Likewise, unavailability of employment opportunities and least family income level have been considered as other factors that deprive people to get the adequate volume as well as nutrients in their foods. The limitation in people's income generation activities have led to poverty which then has led to insufficient food as well as nutrition intake. It was even observed that some people have to skip food for a day.

So, with the data analysis and the respondents' views, the research can easily conclude that poverty leads to hunger. But with the respondents' view, hunger may not always lead to malnutrition as the people under poverty and hunger doesn't think they are malnourished.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Situated in between China and India, Nepal has three major geographic regions: the mountain, hills and Tarai (plains). According to the latest national census conducted in 2011, Nepal has 125 ethnic/ caste groups, and each of its seven provinces is home to a unique combination of groups. fertility and mortality rates have both decreased rapidly in recent decades and life expectancy is increasing. The share of the population in the mountain and hill regions of the country is declining, while the proportion of the population in the Terai is increasing (UNFPA Nepal, 2017).

Nepal, a country nestled in the Himalayas, has long grappled with the challenge of poverty. Despite its rich cultural heritage and breathtaking landscapes, a significant portion of Nepal's population has faced persistent economic hardship. Poverty in Nepal is characterized not only by low income but also by limited access to education, healthcare, clean water, and other essential services. The country's mountainous terrain, coupled with vulnerability to natural disasters, has further compounded the struggle against poverty (World Bank , 2021). Nepal's efforts to alleviate poverty have shown progress over the years, but regional disparities persist. The western regions of the country host a higher proportion of impoverished communities compared to the relatively more prosperous eastern regions. Poverty in Nepal is also interconnected with food insecurity, inadequate nutrition, and challenges in accessing quality healthcare (WFO, 2020)

Though Nepal is predominantly rural, it is undergoing rapid urbanization. Migration, both within Nepal and Internationally. plays an important role in the lives of the Nepalese's, contributing to urbanization, poverty reduction, and improved economic well-being (Wagle & Devkota, 2018).

Nepal is experiencing a period of relative political stability and restructuring of political institutions after facing major upheaval in the recent past. The country was ruled by a king under what is known as Panchayat system from 1960 until 1090, when, in response to large scale protests, it transitioned to a constitutional monarchy (Nightingale, Bhattarai, Ojha, S.T., & Rankin, 2018). The early years of the new

government were unstable from, 1996 through 2006, the country experienced a civil war characterized by a Maoist insurgency (De Juan & Pierskalla, 2016).

In the recent Nepal Living Standard Survey (NLSS) 2020/11, findings reveal that approximately 25 percent of the Nepali population falls below the absolute poverty line. This official monetary poverty line, set at NRs 19,261 per person annually based on local prices (CBS, Nepal Living Standards Survey 2010/11, 2011), equates to an income of about 0.6 US dollars per day. In practical terms, this means that a Nepali individual consuming approximately 0.6 US dollars per day is considered non-poor. It's worth noting that this threshold is considerably lower than the World Bank's benchmark of 1.25 US dollars per day, which the bank classifies as extreme poverty. Notably, there are significant disparities in both the poverty line and its distribution within the country, with the western regions experiencing a higher concentration of poverty compared to the eastern regions (CBS, GoN, & UNDP, Beyond Geography, Unlocking Human Potential, 2014). This represents a substantial decline of more than 50 percent from the alarming 65 percent recorded just three years prior (UNDP, Human Development Report 2013, 2013). It's essential to highlight that Nepal's official poverty measurement primarily relies on a consumption-based approach, which centers on a basic caloric threshold. However, this method overlooks critical aspects, such as how individuals maintain their basic living standards and whether there are sufficient public investments aimed at enhancing people's capabilities to sustain their fight against poverty. In summary, Nepal's approach to measuring poverty has faced criticism for its heavy reliance on monetary metrics, neglecting broader development indicators, and the absence of attention to public investments critical for poverty alleviation. (UNDP, 2011)

The world's population is projected to reach approximately nine billion individuals by the year 2050. Providing sustenance for this increasing global population is a significant concern, particularly when considering the nutritional quality and safety of the food supply (Buttriss & Riley, 2013).

Food security is a state where every individual enjoys consistent access to an adequate supply of safe and nutritious food that aligns with their dietary requirements and personal preferences, facilitating an active and healthy life (FAO, Declaration of the World Food Summit on Food Security, 2009). Food security exists when all people, at

times, have physical and economic access to sufficient safe and nutritious food that meet their dietary need and food preferences for an active and healthy life (World Food Summit , 1996). Every man and women and child has the right to be free from hunger and malnutrition (Conference World Food, 1974). From this definition, four main dimension of food security can be identified: Physical Availability of food; food availability addresses the "Supply side" of food security and its determined by the level of food production, stock level and trade. Economic and physical Access on food; an adequate supply of food at the national and international level does not in itself guarantee household level of food security. Concerns about insufficient food access have resulted in a greater policy focus on income, expenditure, market and prices in achieving food security status. Food Utilization; utilization is commonly stands the way the body makes the most of various nutrients in the food. Sufficient energy and nutrient intake by an individual as the result of good care and feeding practice, food preparation, diversity of the diet and intra-households' distribution of food. Combined with good biological utilization of food consumed, this determined the nutritional status of an individuals. And, Stability of the other three dimensions over time even if your food intake is adequate today, you are still considered to be food if you have inadequate access to food on a periodic basis, risking a deterioration of your nutritional status (FAO, 2008).

The nutritional status of Nepalese population especially children under the age of five years is unsatisfactory. Malnutrition remains to be a problem of public health significance and is one of the leading causes of child morbidity and mortality. Evidently, no significant improvement could be seen in the nutritional status of children as half the children are stunted and 11% are wasted. Severe malnutrition in Mugu district, one of the most remote and least developed districts of Nepal, has been documented, associating it with food scarcity, poor hygiene and ignorance on damaging effects of improper child feeding. Last three decadal reports revealed limited health coverage, leading to high infant mortality rate i.e. 118 for 1,000 births. Similarly, women are also predisposed to malnutrition due to seasonal food shortage and restricted availability of fruits and fresh vegetables, a source of potential minerals and antioxidants. Food inadequacy results in micronutrients malnutrition leading to morbidity, poor health and perverse socio-economic status (Gautam, K.C., 2010; Akhtar & Ismail, 2011; Sharma, 2012; FAO, 2013). (Ghosh, A; Adhikari, P.,

Chowdhury,S.D., 2008) elucidated increased prevalence of stunting (45.57%) and underweight (52.46%) among the tested boys and girls reporting a high prevalence of undernutrition with no gender-based difference. Poverty, lack of education, and the absence of access to appropriate nutrition are identified as key factors contributing to the prevalence of malnutrition in Nepal. These conditions, particularly hunger and poverty, create the circumstances that lead to malnutrition. Addressing nutritional challenges in rural Nepal necessitates the development of effective strategies and thoughtful approaches.

1.2 Statement of the Problem

Poverty, food insecurity, and malnutrition represent interrelated and persistent challenges that undermine the well-being and livelihoods of individuals and communities worldwide. The intricate web of causation among these issues calls for a comprehensive investigation to address the complexities and inform targeted interventions. Poverty, defined not solely by low income but also by limited access to resources and opportunities, continues to afflict a substantial portion of the global population (Sen, 1999). *Inequality Reexamined*. Oxford University Press]. Persistent poverty, particularly in marginalized communities, perpetuates a cycle of deprivation and hinders progress toward achieving sustainable development goals.

The research will explore into the effectiveness of restructuring and services initiatives such as government institutions, non-governmental organizations (NGOs), and private sector involvement, along with the examination of local-level agricultural policies and strategies related to minimize the poverty, food insecurity and malnutrition. A central focus will be on bridging the gaps and causal relationship between poverty, hunger and malnutrition, its policy formulations and practical implementations to realize the effective service delivery to the marginalized community people including pregnant women, senior citizen, people with disabilities and vulnerable children. Additionally, the study will investigate the roles to manage the locally existing poverty by minimizing the food insecurity and status of malnutrition in the local community.

An essential aspect of the research will be evaluating the causal relationship between poverty, food security and malnutrition at the village level concerning their contributions to their livelihood security. Furthermore, the study will explore the best

practices and skillsets prevalent within rural communities and how these acquired knowledge and skills are being harnessed to poverty by enhancing food security and secure livelihoods. Thus, this research study has focused on the effectiveness of local level service delivery mechanism including the health care service, food items availability, market supply and chain, policy formulation, engagement of local employment, and stability of the socio- economic, political and emergencies responses.

1.3 Objective of the Study

The sole purpose of the study is to analyze the inter relationship between status of the poverty and malnutrition, in the marginalized people of Thatikandh Rural Municipality ward no 6 of Dailekh district. The objective that matches the context of this study are;

- To examine food security situation of the community people in the study area.
- To assess factors (i.e., community-family-individual levels) associated with food security status of the community people.
- To analyze the causal relationships between poverty, hunger and malnutrition.

1.4 Significance of the Study

Numerous research studies have traditionally focused on individual themes. However, this research explores the interconnected relationship between three critical sectors: poverty, hunger, and malnutrition. The study investigates how poverty contributes to hunger and how individuals supplement their diets to improve their nutritional status.

1.5 Limitation of the Study

This study was conducted in Thatikandh Rural Municipality ward no 1, 2, and 5, located in the Dailekh district. Therefore, the findings of this research may not be fully representative of the poverty, hunger, and malnutrition status at the national level. The limited geographical scope implies that the results are specific to this particular region and may not be applicable to the entire country. Furthermore, as with any study

involving self-reported data, there is a possibility that respondents may not provide entirely accurate or comprehensive information, which could introduce a degree of response bias into the analysis. Despite these limitations, this research offers valuable insights into the interplay between poverty, hunger, and malnutrition in the studied area.

1.6 Organization of the Study

The chapters have been organized in following five chapters. The first chapter provides an introduction to the study briefly exploring the relationship between poverty, hunger, and malnutrition, as well as their current status. Additionally, outline of the objectives and fundamental ideas of the research have been organized in this part.

The second chapter conducts a comprehensive literature review where various ideas from different writers and scholars as well as previously studied concepts have been organized. This chapter also examines the status of poverty and malnutrition and assesses the interrelationships between them.

The third chapter elaborates on the research methodology used in this study. The methods employed to complete the research and detail the processes for data extraction have been elaborated in this chapter.

Chapter four is dedicated to data analysis where the data is presented and, when necessary, mathematical calculations or analytical techniques to derive meaningful insights and results are applied.

The fifth chapter serves as the conclusion. In this section, the key findings of the research have been shows and a final verdict on the relationship between poverty, hunger, and malnutrition based on our analysis have been presented.

This structure provides a clear roadmap for readers and help them navigate the research effectively.

1.7 Operational Terminologies

Malnutrition is a complex and detrimental health condition characterized by an imbalance in the intake of essential nutrients, including vitamins, minerals, and

calories, necessary for the proper growth and functioning of the human body. It can manifest in various forms, including undernutrition (insufficient intake of nutrients leading to stunted growth, wasting, and deficiencies), overnutrition (excessive intake of calories, often leading to obesity and related health issues), and micronutrient deficiencies (lack of essential vitamins and minerals). Malnutrition is a global health concern with far-reaching consequences, affecting physical and cognitive development, immune function, and overall health. Addressing malnutrition requires a multifaceted approach that includes improving access to nutritious food, education about healthy diets, healthcare interventions, and addressing social and economic determinants that contribute to malnutrition disparities.

Hunger is a distressing and pervasive human experience characterized by the physical sensation of intense appetite and the urgent need for sustenance due to a lack of access to an adequate quantity and quality of food. It is a fundamental physiological condition resulting from insufficient nutrition and caloric intake, often stemming from poverty, food scarcity, or economic disparities. Beyond its immediate discomfort, hunger can have severe and long-lasting consequences on an individual's health, well-being, cognitive development, and overall quality of life. Addressing hunger requires not only immediate relief efforts but also sustainable solutions, such as improving food security, promoting equitable access to nutritious food, and addressing systemic factors that perpetuate food insecurity.

Poverty is a multifaceted societal condition characterized by the lack of essential resources and opportunities necessary for a decent standard of living. It encompasses a scarcity of income, assets, and access to basic necessities such as food, clean water, education, healthcare, and safe shelter. Poverty often results in a diminished quality of life, limited economic mobility, and increased vulnerability to social, health, and economic challenges. Its effects extend beyond material deprivation, influencing individuals' overall well-being, social participation, and opportunities for personal and collective development. Addressing poverty requires comprehensive strategies aimed at reducing disparities in wealth, promoting equitable access to resources, and fostering economic, social, and political inclusion.

CHAPTER TWO: LITERATURE REVIEW

2.1 Conceptual Review

Globally, extreme poverty continues to be overwhelmingly rural: an estimated 79 % of those experiencing poverty in rural areas. With latest figure indicating that in 2015 there were around 736 million people living in extreme poverty globally- down from nearly 2 billion in 1990- it can be surmised that the number of poor people in the world today is likely in the realm of 580 million. Taking into the account of multi-dimensional aspects of deprivation- including, for example, access to education and essential service- the rurality of poverty becomes even more stark: an estimated 83.5 % of poverty is rural taking this approach (World Bank , 2021).

A critical area that warrants investigation is determining the extent to which the surplus production generated by agriculture is invested in the form of necessary contributions. Sharma (2009, p. 11) also pointed out that the profits from farming often flow into the hands of landowners residing in towns and cities, resulting in nominal reinvestment in agricultural activities. This underlines the need for increased investment in the agricultural sector to unlock its full potential for sustainable development and poverty alleviation.

"Poverty isn't solely defined by income, and doesn't tell the whole story of well-being", (Sen, 1999). Income and wealth hold significance primarily as tools to achieve other goals, rather than as inherently valuable in themselves. Therefore, poverty extends beyond a mere shortage of income; it encompasses a deficit of opportunities. On the flip side, development transcends the mere accumulation of wealth; it revolves around the expansion of opportunities (Sen, 1999).

Poverty, as a multifaceted phenomenon, defies a singular definition. It encompasses not only income and material deprivation but also a lack of access to essential resources and opportunities, ultimately hindering individuals' ability to lead fulfilling lives (Sen, 1999).

Malnutrition is closely associated with the low socioeconomic status of vulnerable populations in South Asia. It stems from the inability to afford nutritionally rich foods due to poverty, which leads to inadequate food consumption and the onset of diseases.

Families with limited income, particularly low-income households, often allocate a significant portion of their total income to meet food needs. This leaves little to no income available for healthcare expenses, further exacerbating the cycle of malnutrition and illness (Akhtar & Ismail, 2011).

Poverty and food scarcity not only contribute to food insecurity but also fuel the spread of disease epidemics. Therefore, poverty alleviation efforts are directly linked to reducing malnutrition rates, and providing nutritional education can significantly contribute to improving the living standards of disadvantaged and impoverished communities in South Asian regions.

Recent data indicates that in 2015, there were approximately 736 million people living in extreme poverty worldwide, a significant decline from nearly 2 billion in 1990. Consequently, it can be inferred that the current global population living in poverty is approximately 580 million. "Globally, extreme poverty remains predominantly concentrated in rural areas, with an estimated 79% of individuals experiencing poverty residing in such regions (World Bank, 2018).

Furthermore, when considering the multifaceted dimensions of deprivation, which include factors like access to education and essential services, the rural prevalence of poverty becomes even more pronounced. By this broader perspective, approximately 83.5% of poverty is situated in rural areas, underscoring the rural-urban disparity in the experience of poverty."

Poverty and inequality are major challenges for Nepal, although the situation has improved over time. GDP per capita was just \$1034 in current US dollars as of 2018, the third-lowest level in Asia (WB 2020). As of 2019, 39 % of the population lived in poverty at or below \$3.20 per person per day, while 8% of Nepal's population was estimated to live in extreme poverty at or below \$1.90 per person per day. down from 50% living in extreme poverty in 2003 (WB 2020a, c) This reduction can largely be attributed to the increase in international migration, which has driven up wages for the remaining working population in Nepal; the dramatic increase in remittances sent to the country since the late 1990s; and decreases in the fertility rate and average household size (WB, 2016 b). The more holistic Multidimensional Poverty Index (MPI) likewise shows a decline, from 59.4% in 2006 to 28.6 % in 2014 (GoN and

OPHI 2018) The lowest multidimensional poverty and rates in Bagmati Pradesh and Gandaki Pradesh, while highest are in Province 2 and Karnali Pradesh (GoN and OPHI 2018). There is inequality in employment opportunities, ethnicity, caste, and gender (Mainali, Jafaray, and Montes- Rojas 2017 ; Yamamoto et al. 2019).

Agriculture is crucial to the economy, but farmers suffer from small landholdings and low productivity. 70% of employment is in agriculture, while 13 % is in industry and 17% in services. 25% of GDP comes from agriculture, 13 % from industry, and 51% from services (WB 202). Nepal's farmers grow mainly rice, maize, wheat, millet, barley, pulses, oilseeds, and sugarcane (CCAFS 2020). Overall productivity of rice and cereals has increased in recent decades, yet yields in Nepal continues to lag behind the average in South Asia, including in neighboring India (FAO 2020). The provision of agriculture extension and advisory services in the country is limited, and the effectiveness of extension agents is often hampered by inadequate motivation and limitation locally specific knowledge and skills (Kyle and Resnick 2019). Just over half of Nepal's agriculture land is irrigated, leaving a large proportion of farmers reliant of refined agriculture and particularly vulnerable to the effects of climate change (Pradhan and Belbase 2018). The average farm size is just 0.7 hec, and over half of Nepali farm household have less than 0.5 hec of land, which limits the possibilities for farming above subsistence levels (GoN 2015a).

2.2 Historical Review

Agricultural development in Nepal has been a subject of extensive research and analysis over the years. Scholars, policymakers, and experts have examined various aspects of Nepal's agriculture sector, ranging from its historical context to contemporary challenges and opportunities. Here is a literature review summarizing key findings and insights from relevant studies. This study provides an overview of the historical evolution of agriculture in Nepal, highlighting the transition from traditional subsistence farming to modernization efforts. It discusses the role of various civilizations and historical events in shaping agricultural practices. (Gurung, 2002)

This research examines the trends and drivers of agricultural transformation in Nepal, including the adoption of modern farming techniques and changes in cropping

patterns. It emphasizes the role of agricultural policies in promoting transformation and reducing poverty (Devkota et al., 2017). This study identifies and analyzes the challenges faced by Nepal's agriculture sector, including low productivity, land fragmentation, inadequate irrigation, and limited access to credit. It discusses the implications of these challenges on food security and rural livelihoods. (Shrestha et al., 2018). This research explores opportunities and challenges related to sustainable agriculture in Nepal, with a focus on organic farming and agroecological practices.

The Gorkha conquest of the Baise Chaubisi Rajya and Sen Kingdom in the latter part of the 18th century marked a significant moment in the agrarian history of Nepal, leading to the establishment of the Nepali state. This era brought about substantial changes in governance and land management. The Gorkha empire introduced a well-organized bureaucracy and an efficient revenue collection system that surpassed previous state formations (Regmi, Land Ownership in Nepal, 1976).

The Tarai region, with its flat and fertile land, held immense value for the Gorkhali rulers due to its substantial revenue potential. The new rulers actively promoted the expansion of the tax collection system and encouraged increased settlement in the region (Regmi, 1970). Although extensive portions of the plains remained covered in forests, a significant portion of the cultivated and permanently settled land was legally categorized under a tenure system known as "raikar." This allowed individual households to manage personal plots, while the state retained the ultimate ownership of the land (Regmi, 1987a). Regmi refers to this as 'state landlordism.'

The transition to state landlordism had significant implications, particularly for the earlier zamindars who held de facto property rights over their lands in the pre-Gorkha period. These zamindars, who had the authority to lease their land to tenants, witnessed a shift in their power as the state emerged as the ultimate landlord and the entity responsible for surplus appropriation (Regmi, 1987a).

During the Rana era, there was a moderate development in productive forces, accompanied by the introduction of new cultivation techniques and an increase in agricultural output (1987). While this development may have been partially driven by Rana policies, it is more likely attributed to population growth. In terms of crops, government taxation records from that period indicated the cultivation of paddy,

millet, and lentils (Regmi, 1988). Although wheat was likely produced as part of a rice-wheat cycle, most records of wheat production came from the hill regions, and the limited dry season irrigation in the Tarai region posed challenges to wheat cultivation.

In regions where shifting cultivation was still practiced, such as the Chitwan valley, the local Tharu communities commonly cultivated rice, mustard, and maize (Muller Boker, 1999). In irrigated fields, they planted jhinuwa dhaan, a long-grain rice variety, while in dryland areas, they cultivated dry rice or mustard. Both direct sowing and transplantation methods were in use, resulting in a single annual harvest (Muller Boker, 1999).

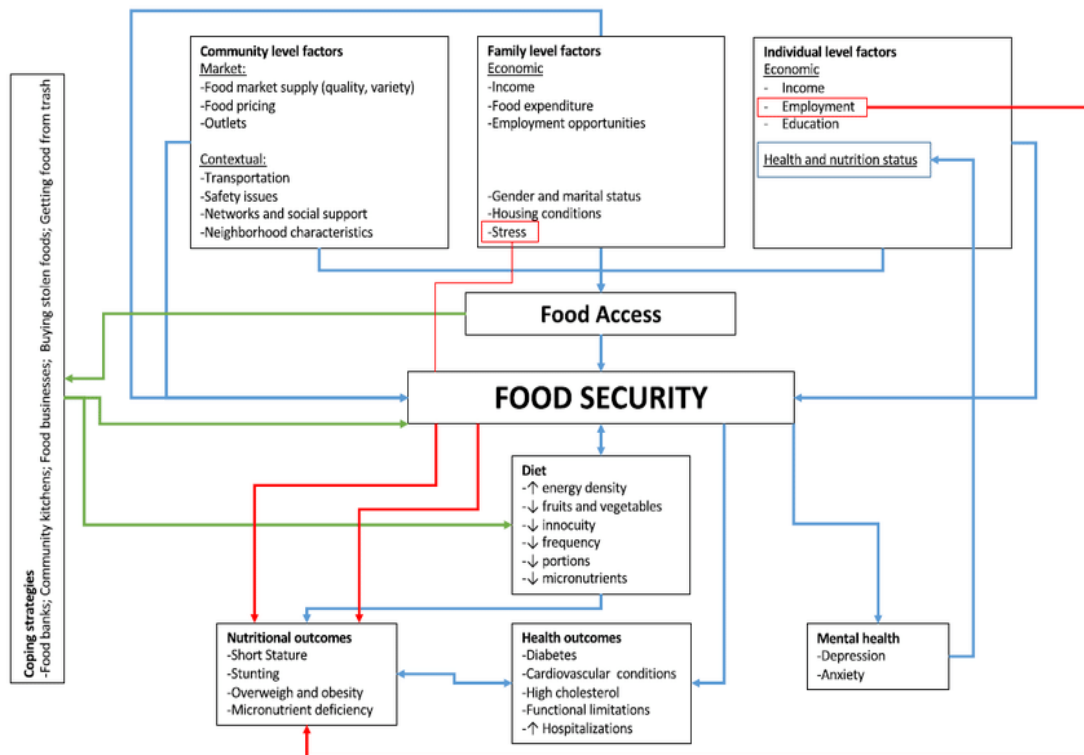
2.3 Theoretical Review

2.3.1 Vicious Circle of Poverty

Ragnar Nurkse, an economist in 1953, explores that there exist interconnected and self-reinforcing cycles known as the 'vicious circles of poverty' that tend to perpetuate low levels of development in Less Developed Countries (LDCs). This concept is elucidated by Nurkse, who describes it as a circular arrangement of forces that interact in such a way as to keep a poor country trapped in poverty. For instance, a person in poverty may lack access to sufficient food, leading to poor health due to undernutrition. This diminished physical well-being results in reduced work capacity, which perpetuates poverty, creating a cycle where the individual remains impoverished and undernourished, and so on. This concept can be extended to an entire country, encapsulated in the notion that "a country is poor because the country is poor."

The vicious circle of poverty operates on both the demand and supply sides. On the supply side, the low real income leads to limited savings, which, in turn, translates into low levels of investment and a scarcity of capital. The deficiency in capital further contributes to low productivity, ultimately leading back to low income. This completes the vicious circle from the supply side (Bauer, 1965).

Figure 1: Conceptual Framework of food security and poverty



(Source: Vilar- Compte et al 2021)

2.3.2 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, 1996.

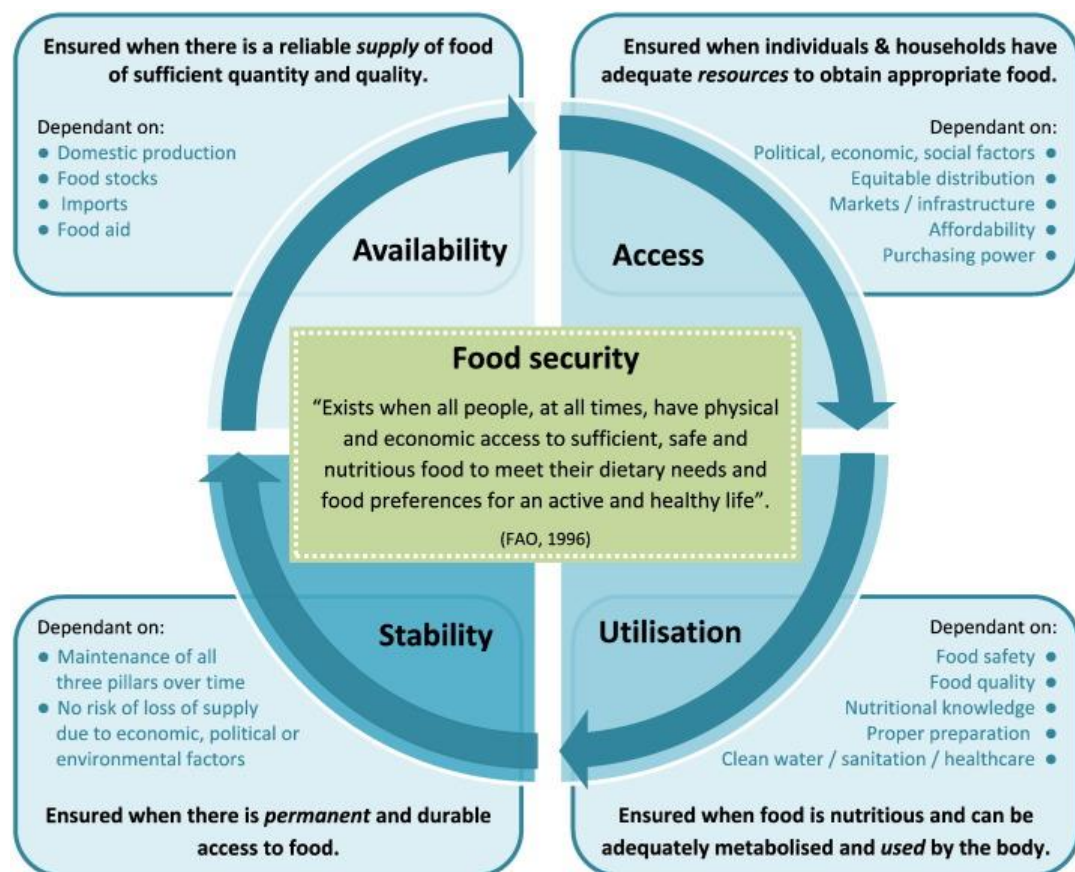
Dimensions of food security and its determinants encompass a comprehensive framework for understanding and addressing food security challenges. The following is a breakdown of these dimensions and their determinants, as per the Food and Agriculture Organization (FAO): Here, the World Food Organization has defined the factors associated with food security;

- Availability: Domestic production, Import capacity, Food stocks and Food aid.
- Accessibility: Income, purchasing power, own production, Transport and market infrastructure and Food distribution.

- Utilization: Food safety and quality, clean water, Health and sanitation Care, feeding, and health-seeking practices.
- Stability: Weather variability, seasonality Price fluctuations, Political factors, and socio- economic factors. (FAO, An Introduction to the Basic Concept of Food Security , 2008)

These dimensions and their determinants provide a holistic view of the factors that influence food security, encompassing both the availability and access to food, its utilization, and the stability of these factors over time. This framework is valuable for designing policies and interventions aimed at enhancing food security on a global scale.

Figure 2: Four Pillars of Food Security



2.4 Policy Review of Poverty, hunger and Malnutrition

Improved food security – including decreasing undernourishment- in South Asia over the past 25th year is due mainly to rising cereal production and yields, declining

population growth rates, and greater government spending as a share of GDP. Nepal has seen an increase in cereal yields from about 1900 kg/ha in 1990 to about 2800 kg/ha in 2017- a significant improvement- yet the level is still lower than the average for South Asia.

The National Nutrition Policy (2020) of Nepal is a comprehensive framework designed to enhance the nutritional well-being of the population. This policy seeks to improve nutritional status by increasing access to both nutrition-specific and nutrition-sensitive services for newborns, children, adolescents, and women. It places a strong emphasis on capacity building for service providers and raising public awareness at the community level to promote positive nutritional behaviors while eliminating negative habits. Furthermore, the policy aims to establish a training center and encourages collaboration among government, cooperative, and private sectors to ensure self-sufficiency in dairy production. Overall, the National Nutrition Policy strives to address malnutrition and promote healthier lifestyles through a range of strategic measures and partnerships.

The Integrated Management of Acute Malnutrition Guideline (2020) in Nepal focuses on early identification, referral, follow-up, and treatment of acute malnutrition to reduce associated morbidity and mortality.

The National Dairy Development Policy (2021) in Nepal aims to boost milk production and productivity through collaboration and partnerships among the government, cooperative, and private sectors while striving to achieve self-sufficiency in dairy production. Additionally, the policy outlines plan to establish a training center, emphasizing capacity building and knowledge dissemination in the dairy sector.

The National Food Safety Policy (2019) in Nepal focuses on adopting a risk-based approach to food hygiene and quality control to protect consumers from food-related risks and hazards. This policy also emphasizes education, communication, and dissemination of information, as well as the development of competent inspection and monitoring systems for food hygiene and quality.

The National Health Policy (2019) in Nepal aims to improve the nutrition situation and discourage the use and promotion of adulterated and harmful foods while

expanding access to quality and healthy food. It underscores the importance of nutrition as a fundamental component of overall health and well-being.

The Right to Food and Food Sovereignty Act of 2018 is a pivotal legislative framework in Nepal that enforces and safeguards the fundamental rights of citizens in relation to food, food security, and food sovereignty. This act not only recognizes the inherent right of every individual to access adequate and nutritious food but also establishes legal provisions to ensure the realization of this right. It outlines the mechanisms and regulations necessary to guarantee that citizens have consistent access to food, promoting food security, self-sufficiency, and sovereignty in the context of Nepal's unique food landscape. In essence, this act represents a crucial step toward addressing hunger and malnutrition while promoting food-related rights and self-determination among the population.

The recognition of food as a fundamental human right in the Constitution of Nepal 2015 is primarily found in the Directive Principles and Policies of the State. Specifically, it is highlighted in Part 3, Directive Principles and Policies of the State, Section 36(2) of the Constitution. This section underscores the importance of ensuring food security, among other social and economic rights, as a fundamental principle of state policy. It signifies the government's commitment to addressing issues related to hunger, malnutrition, and food access as a matter of constitutional responsibility. Along these all, other policies and provisions has ensured to the reduction of poverty by improvement of the nutritional level of people by the Nepal government including Strategy for Infant and Young Child Feeding (2014), Food and Nutrition Security Plan of Action (2013), Agriculture Development Strategy (2015–2035), Nutrition-Related Legislation on Flour Fortification (2011), Agribusiness Promotion Policy (2006), School Health and Nutrition Strategy (2006), National Policy on Skilled Birth Attendance (2006), National Nutrition Policy and Strategy (2004), National Agriculture Policy (2004), and Food Act, Food Rules (1970, 1995, 2007) and, Black-Marketing and Some Other Social Offenses and Punishment Act (1975).

2.5 Empirical Review

The existing of massive poverty has been well known as an object problem of this era for all countries but particularly in the developing countries. In most of the developing

countries, poverty has for centuries, been the lot of the largest part of the population. The perceptions of poverty and underdevelopment, focused in a single fatalistic diagnosis throughout the colonial era.

(Sen, 1999) has considered biological approach in defining poverty. According to him, "Poverty is not just a matter of being relatively poorer than others in the society, but of not having some basic opportunities of material well-being; the failure to have certain minimum 'capabilities. The criteria of minimum capabilities are 'absolute' not in the sense that they must not vary from society to society, or over time, but people with deprivation are judged absolutely and not simply in comparison with the deprivations of others in that society. If a person is seen as poor because he is unable to satisfy his hunger, then this diagnosis of poverty cannot be altered merely by the fact that others too may also be hungry. As the problem of poverty is concerned, it has multidimensional characteristics. In general unemployment, underemployment and high-income inequalities are found to be major causes of poverty. In the context of Nepal, low levels of capital formation, small land holding, low income, low productivity, increasing expenditure, unemployment outside agriculture, disguised unemployment in agriculture sector and low level of technological advancement in agriculture, high population growth, illiteracy, lack of resources and slow pace of economic growth are also the factors of poverty. Poverty is one distressing situation that majority of people in developing countries have to contend with in their daily lives. It is common among the low- and middle-class income in these developing countries such as Nepal.

Malnutrition refers to deficiencies, excesses or imbalance in a person's intake of energy and/ or nutrients. The term malnutrition covers two broad group of conditions. One is 'undernutrition- which includes stunting (low height for age), wasting (low weight for height), underweight (Low weight for age) and micronutrition deficiencies or insufficiencies (a lack of important vitamins and minerals). The other is overweight, obesity and diet related non-communicable disease (such as heart disease, stroke, diabetes, and cancer)- WHO.

A family's quality of life is impacted by poverty (Medicine, Education, & Years, 2019a). A poor person is not able to take proper food & nutrition & his capacity to work reduces. Reduced capacity to work further reduces his income, making him poor. Children from

poor family never get proper schooling & proper nutrition (Medicine, Education, & Years, 2019a). They have to work to support their family & this destroys their childhood. In fact, so many factors due to poverty leads to the supplement of the nutritious food intake and lacking to the required food supplement it results to the malnutrition. There is no proper sanitation & drinking water facility in slums & he falls ill often & his health deteriorates. Therefore, only the overcoming forms the poverty there will be improvement in the verity of food availability and the person will be healthy to contribute the family and whole nations.

Nepal faces many challenges to nutrition and food security, including mitigating the impact of COVID-19 on the health and nutrition status of women and children. It is estimated that an additional 60,000 children need services for acute malnutrition due to COVID-19 and its secondary impacts. Bottlenecks to public and private investment, poor infrastructure, a difficult regulatory environment, limited access to power, the lowest road density in South Asia, high susceptibility to climate change (including floods), and weak governance further hinder economic growth and human development (Becker, 2021). Compounding this situation are complex gender, ethnicity, and caste relationships. These play an important role in food security as the majority of women and many marginalized group members work in agriculture and often do not have access to their own land, cash, or other productive assets (USAID 2020a). The agricultural sector employs around 70 percent of the population, but it struggles to produce an adequate food supply for the country. Low agricultural productivity, weak market linkages and coordination, poor infrastructure, and inadequate government resources contribute to the underlying causes of hunger, poverty, and undernutrition in Nepal (USAID 2020a). As a result, addressing food security is a priority for the GON, which has made commitments to reduce food insecurity and improve resilience to shocks (USAID 2020a). Currently, Nepal ranks 103rd out of 162 countries in progressing toward meeting the Sustainable Development Goals (SDGs) (Sachs et al. 2019).

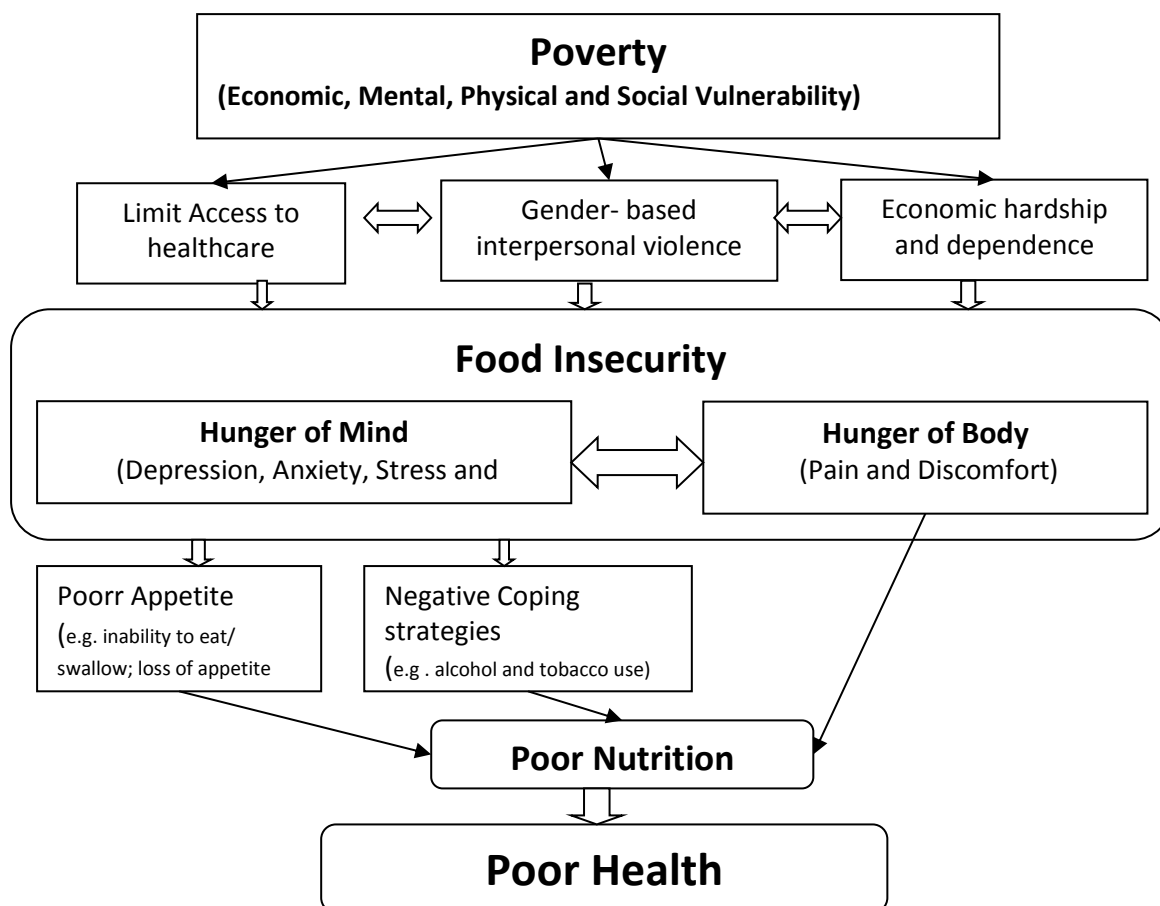
The government of Nepal is deeply committed to achieving global nutrition targets set by the World Health Assembly and the Sustainable Development Goals. Their objectives include reducing childhood stunting to 24% by 2025 and 15% by 2030, decreasing wasting to less than 5% by 2025 and 4% by 2030, lowering anemia rates

to 10% by 2030, and increasing exclusive breastfeeding rates to over 90% by 2030. To meet these ambitious goals, Nepal has implemented a comprehensive range of nutrition-focused and nutrition-related interventions. Nutrition-specific measures are aimed at individuals and involve providing micronutrient supplements to children under 5, adolescents, and pregnant or lactating women, as well as fortifying essential foods with micronutrients such as salt iodization and flour fortification. Additionally, awareness campaigns and behavior change communication initiatives are actively promoting optimal infant and young child feeding practices and addressing severe acute malnutrition. Complementary to these efforts, nutrition-sensitive interventions target families and communities, focusing on hygiene, sanitation, nutritious diets, school feeding programs, and parental education. These collective actions aim to improve the nutritional status of Nepali citizens and ultimately contribute to their overall health and well-being.

2.6 Conceptual Framework

Food insecurity, defined as limited or uncertain access to adequate food, is a persistent issue affecting millions of people globally. In the United States, African American communities have been disproportionately impacted by food insecurity (Seligman, Laraia, & Kushel, 2010, pp. 304-310). While food insecurity is typically associated with nutritional concerns, its ramifications extend beyond the physical domain. It can have profound effects on individuals' mental health and exposure to violence, particularly among marginalized populations like African American women (Whittle, Palar, Seligman, Napoles, & Frongillo, 2015, pp. 24-31).

Figure 3: Conceptual Framework of food security and poverty



Food insecurity has significant public health implications and has been widely recognized as such, globally. However, in many countries this problem remains limited by a lack of population level data even among many high-income countries. Inadequate food intake has direct link to compromised nutritional status which negatively impact physiological mechanisms. For instance, (Dixon, Winkleby, & Radimer, 1988- 1994), demonstrated that individuals from food-insufficient households had compromised physical health status compared to those from food-sufficient households. They also demonstrated that such compromised health status was linked to poor demonstrable physiological outcomes such as lower injection concentrations of critical nutrients which could predispose those individuals to chronic diseases.

Poverty, hunger, and malnutrition are interrelated challenges that affect individuals and communities globally. Understanding their intricate connections is essential for

devising effective strategies to alleviate suffering and improve the well-being of vulnerable populations.

Poverty as the Underlying Determinant: Poverty is characterized by inadequate income and limited access to resources, services, and opportunities (Sen, 1999). Poverty serves as the foundational determinant, limiting people's ability to afford nutritious food and access vital healthcare. Hunger is the result of insufficient access to consistent, safe, and nutritious food (FAO, 2008). *An Introduction to the Basic Concepts of Food Security*. Food and Agriculture Organization. Poverty often leads to food insecurity, making individuals and families vulnerable to hunger. Malnutrition as a ramification of hunger. Malnutrition encompasses undernutrition and overnutrition, resulting from inadequate or imbalanced diets (Black et al., 2013). Maternal and child undernutrition and overweight in low-income and middle-income countries. Persistent hunger can lead to malnutrition, causing health issues, stunted growth, and micronutrient deficiencies.

Poverty, hunger, and malnutrition create feedback loops, reinforcing one another. For example, poverty leads to hunger, which, in turn, exacerbates malnutrition, further entrenching poverty (Faareha, Rehana A, & Sohra S, 2020).

Determinants of change for the poverty and food insecurity and malnutrition are effective policies, social programs, and interventions can break these cycles. Strengthening communities' capacity to access resources and improve food security. Addressing poverty, hunger, and malnutrition results in enhanced health, education, and overall quality of life for affected populations. Understanding the intricate connections between poverty, hunger, and malnutrition is fundamental to creating targeted interventions and policies that can break the cycle of deprivation and improve the lives of individuals and communities facing these challenges.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Research Design

Research design is “a blue print for conducting a study with maximum control over factors that may interfere with the validity of the findings”. According to F.N Kerlinger, “Research design is the plan, structure and strategy of the investment conceived so as to obtain answer to research questions and to control variables.” The research techniques are the Household Survey, Key Informant Interview, Interview, Focused Group Discussion, E-library, internet. In order to achieve the research objectives, all the available data collection techniques have been used. The qualitative data and quantitative data are also placed in appropriate places.

Descriptive Research Design have been used where descriptive research design means the process of accumulating facts. According to Best and Khan, “A descriptive study describes and interprets what is, it is concerned with conditions or relationships that exists, opinions that are held, processes, that are going on, effects that are evident or trends that are developing.”

3.2 Selection of the Study Area

The study area has been selected purposively by the researcher i.e., during the selection of the research area, the researcher has been used to determine the area to conduct the research. Thatikandh Rural Municipality in Dailekh District in the Karnali Province, Nepal. The Thatikandh Rural Municipality consists of 6 wards. Total population of the Rural Municipality is 18301 (Female: 9371 and Male: 8930) with 3327 Household.

Thatikandh Rural Municipality was established in 2017 (2073 BS) as a local government of Nepal. The office of the Thatikandh Gaunpalika is located in Lakandra, Dailekh district, Karnali Province of Nepal. Thatikandh Gaunpalika is surrounded by Chamunda Bindrasaini Municipality on the East, Aathabis Municipality on the West, Shubh-Kalika Rural Municipality of Kalikot district on the North and Chamunda Bindrasaini Municipality and Aathabis Municipality on the South. The total area of the Thatikandh Rural Municipality is 88.22 square kilometers (34.06 sq mi). The population density of this municipality is 210/km² (550/sq mi).

3.3 Universe, Sampling and Sampling Procedure

Among the total of around 2.6 crore population, the total population of Thatikandh ward no 1, 2 and 6 are the sampling universe of the study i.e., 9269 with 1590 households. The Thatikandh Rural Municipality has been considered as the sampling frame and the Household population from the ward no 1, 2 and 6 have been considered to be sample population i.e., 3389, 2810 and 3060 respectively as to address the community from different ethnicity residencias. Among the 131 sample populations, 108 has been selected as sample number.

(Source: Collected by researcher, 2023)

3.3.1 Sampling Procedure

Sampling denotes the process of selection of an area and population of study. For the sampling procedure, it has been done as per the sampling method of Kregic and Morgan (1970). First, Thatikandh Rural Municipality has been taken into sampling area. The total number of 18301 population is the universe of the study. The total population is the entire marginalized population of Rapti municipality. Out of the universe, Thatikandh Rural Municipality ward no 1, 2 and 6 are selected for the sampling frame for research. Out of the sampling frame Thatikandh Rural Municipality ward no 1, 2 and 6 have been selected by purposive sampling technique by the research. The whole population 131 is the sample of the research and 108 is the sample number. Among the population of the single patch, all the households were the sample population for the study. The growing necessity for a statistically representative sample in empirical research has highlighted the importance of an efficient method for calculating sample size. In response to this need, Krejcie and Morgan (1970) developed a table that offers a convenient reference for determining the appropriate sample size for a given population ((Krejcie & MOrgan, 1970).

Table 1: Conceptual Framework of Food Security and Poverty

Ward No	Universe	Sample Population	Sample Number
1	3389	38	32
2	2810	44	36
6	3060	49	40
Total	9259	131	108

Source: Field Study, 2023

3.4 Data Collection Techniques and Tools

For the collection of data, Household Survey has been conducted along with Key Informant Interview, and Focused Group Discussion. Questionnaires has been used as the tool for collecting the data in survey.

3.4.1 Household Survey

A household survey is a structured data collection method used to gather information from households on various aspects of their demographics, living conditions, economic activities, and social well-being. These surveys are valuable tools for researchers, governments, organizations, and policymakers to understand and address a wide range of social and economic issues. Key components of a household survey typically include: Household Demographics, Economic Status, Housing Conditions, Education, Health and Healthcare, Food Security, Nutrition, Social Services, Agriculture and Livelihoods, Financial Inclusion, Migration and Mobility, Vulnerability and Resilience, Access to Technology and Community and Social Networks.

- A total of 108 households are taken as respondents for household survey.
- The questionnaires have been attached along Annex I.

3.4.2 Key Informant Interview

The primary data has been collected from Key Informant Interviews techniques through using the semi or unstructured KII guideline. The subject of the study are the officials and specialized persons i.e., ward members and executives, Health personals and malnutrition related project's head of this area. KII has been done in order to get the in-depth information on poverty, hunger and malnutrition status of the households.

- The KII guidelines have been attached in Annex III.

3.4.3 Focus Group Discussion

A focus group discussion (FGD) is a specialized qualitative research method involving 6-14 participants who come together under the guidance of a facilitator to explore specific issues or research questions. These sessions follow a formal structure to

ensure focused discussions on predetermined topics, allowing participants to freely exchange their views and insights. The primary aim of FGDs is to uncover a diverse range of perspectives while gathering rich qualitative data. In the context provided, FGDs have been conducted among stakeholders such as homestay management committee members, homestay households, local leaders, and tourist guides, with the purpose of gaining comprehensive insights into the tourism attractions and offerings of the homestay, as well as evaluating the challenges and opportunities faced by both homestays.

- 10 peoples respective of Thatikandh ward no 1, 2 and 6 were taken for focused group discussion.
- The FGD agendas have been attached in Annex IV

3.5 Data Analysis Techniques and Tools

With the help of grounded theory¹, the data thus collected has been theorized and respected result have been extracted. The qualitative data is the source of data for getting to a theory in data analysis. Induction method has been used where the particular case of Thatikandh rural municipality ward no 1, 2 and 6 has been generalized to the overall case of Poverty, Hunger and Malnutrition. According to P.V Young, “Induction method is the process of reasoning from particular case to whole group of cases, from concrete facts to generalization, from individual’s events to universe.”¹

¹ Grounded theory: Grounded theory is a qualitative research method focused on deriving theories from empirical data rather than preconceived notions. Through systematic data collection and analysis, it uncovers patterns and relationships to develop new theoretical frameworks, primarily applied in sociology, psychology, and social sciences for understanding intricate social phenomena.

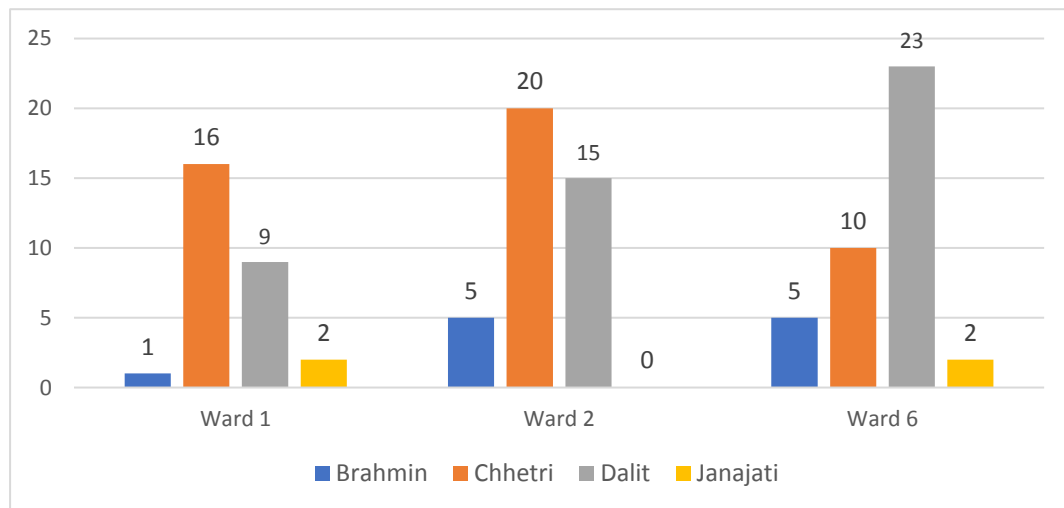
CHAPTER FOUR: ANALYSIS AND INTERPRETATION OF FIELD SURVEY DATA

4.1 General Information of the Sampling Frame

The sampling frame for assessing the relationship between poverty, hunger, and malnutrition encompasses a systematic approach to identifying and defining the target population. It typically involves compiling a comprehensive list or database of individuals, households, or geographic areas within the study area, representing a diverse range of socio-economic backgrounds and demographic characteristics. This sampling frame forms the basis for selecting a statistically representative sample that adequately captures the spectrum of poverty levels, food security situations, and malnutrition prevalence. It is crucial that the sampling frame reflects the complexities of the study context, ensuring that data collected can yield meaningful insights into the interconnected dynamics of poverty, hunger, and malnutrition among the population of interest.

4.1.1 Caste & Ethnicity Distribution

Figure 4: Distribution of the Respondents in Cast/ Ethnicity

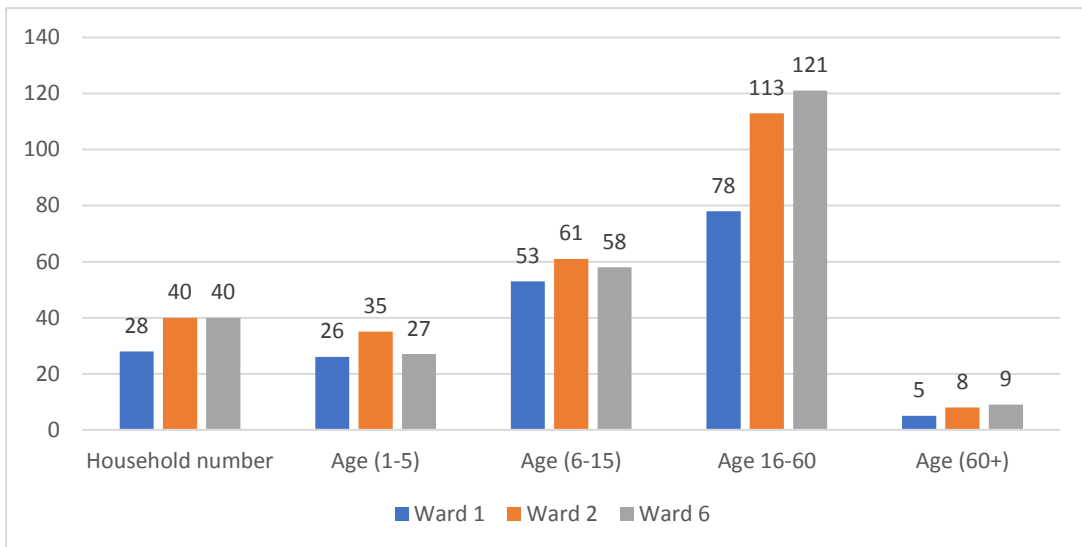


(Source: Field Study, 2023)

In the study area, the total population of Dalit seems to be the largest with 43.51% immediately followed by Chhetri population with 42.59%. The total population of Brahmin and Janajati are in minority in whole spectrum. Ward wise analysis shows the dominance of Chhetri ward 1 and 2 whereas Dalit population is dominant in ward 6.

4.1.2 Age group Distribution

Figure 5: Distribution of the Respondents in Age Group

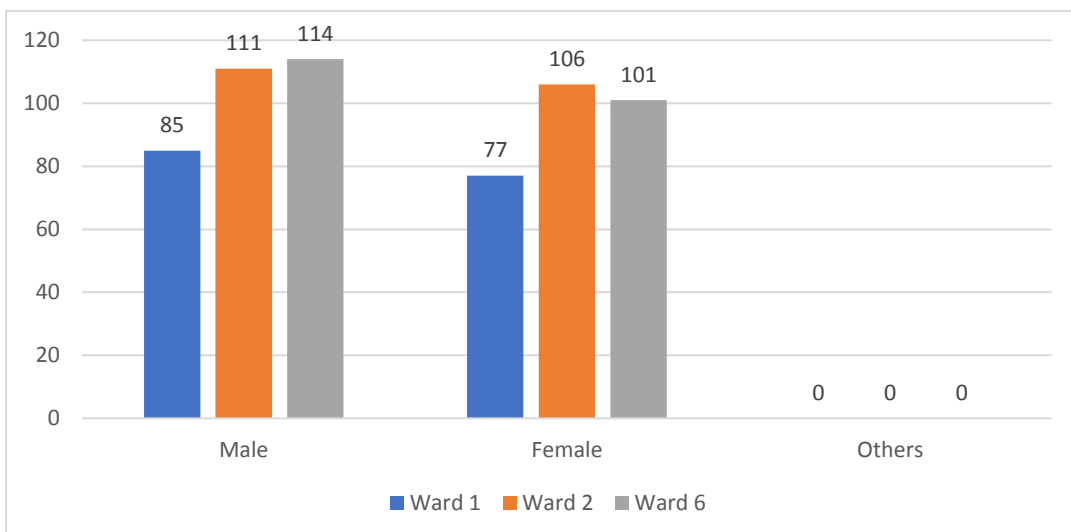


(Source: Field Study, 2023)

The distribution of population according to age shows the presence of more active population with 52.52% of population aged 16-60 years of age. The number shows that in all the wards there are enough economically active population as compared to economically inactive groups.

4.1.3 Gender Status

Figure 6: Distribution of the Respondents in Gender Group Status

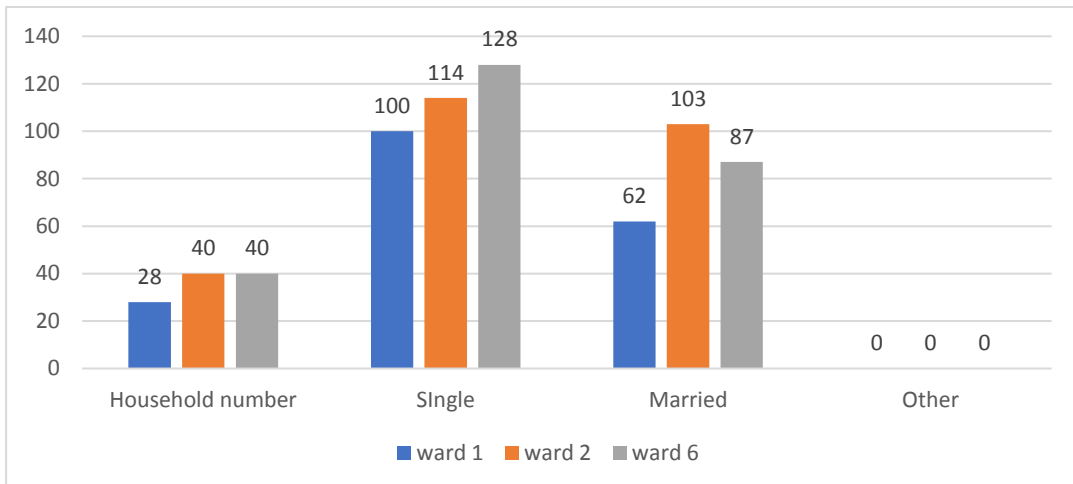


(Source: Field Study, 2023)

The gender wise population shows male population to be in greater number than female population i.e., 52.18% are male and 47.82% are female.

4.1.4 Marital Status

Figure 7: Distribution of the Respondents Marital Status

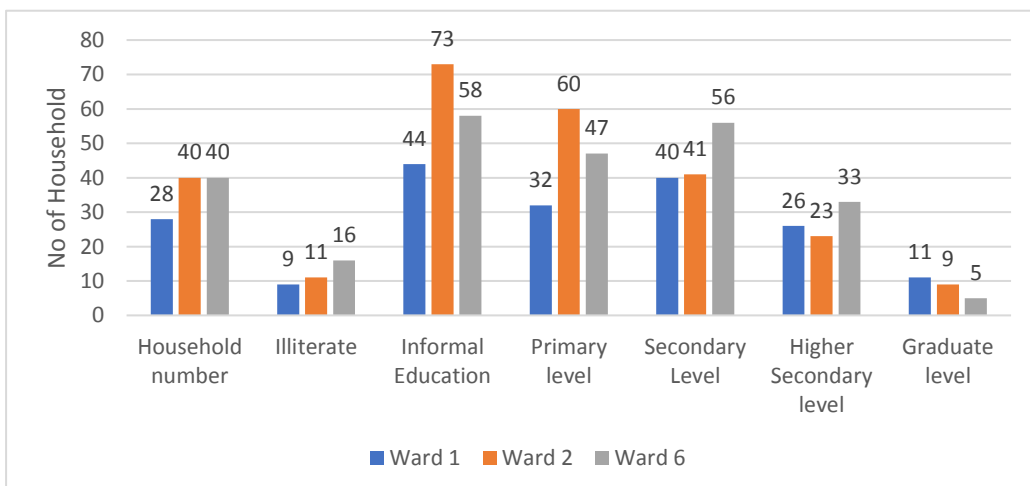


Source: Field Study, 2023

Considering into marital status of population, there are more single than married i.e., 57.57% are single and remaining 42.43% are married.

4.1.5 Educational Status

Figure 8: Distribution of the Respondents in Education Status

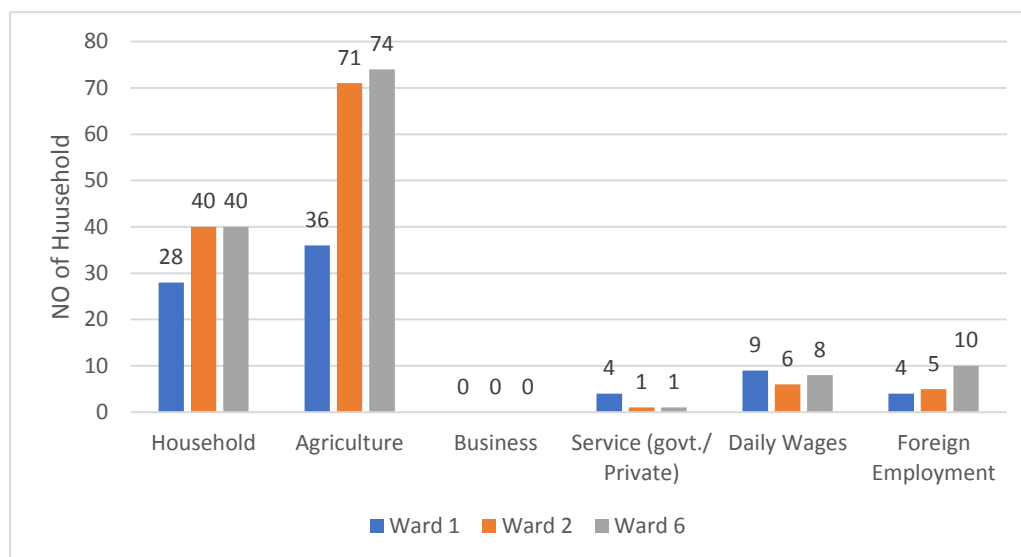


Source: Field Study, 2023

The educational status of the study area shows there are more literate population than illiterate. In all the wards, literate people are 93.93% with 29.46% with informal education whereas only 6.07% are illiterate.

4.1.6 Employment Status

Figure 9: Distribution of the Respondents in Employment Status

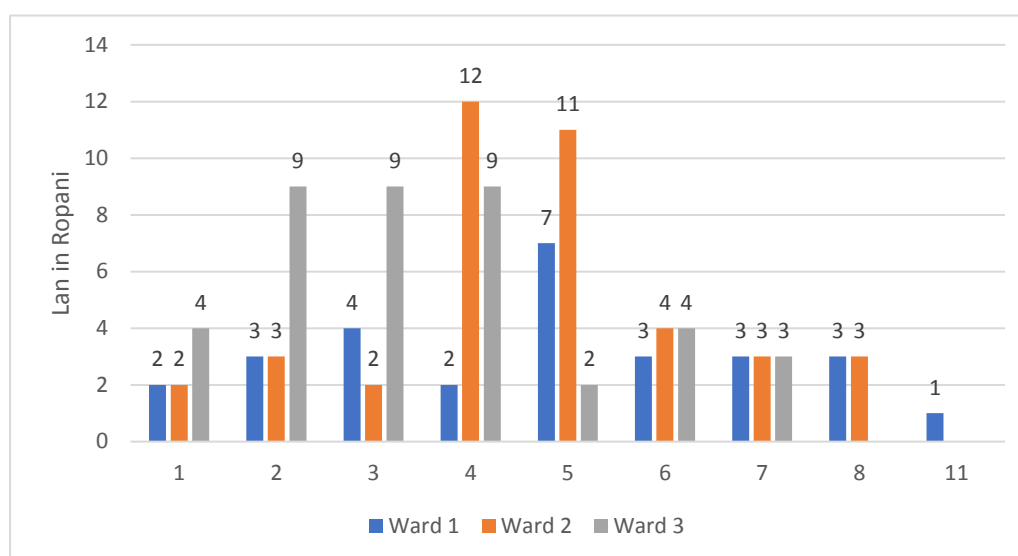


Source: Field Study, 2023

The above data shows majority of people are engaged mostly in Agriculture sector with the least in service sector. In the study area, there is total dominance of agriculture as major source of earning as 79.03% are involved mostly in agriculture.

4.1.7 Land Possession (in Ropanies)

Figure 10: Distribution of the Respondents in Land Possession Status



(Source: Field Study, 2023)

From the above figure, Land possession status is mixed. Most of the household has possessing 3 to 5 ropanies. The study shows that majority of the land possession do not have food sufficiency up to 3 months.

4.1.8 Type of Houses

Table 2: Distribution of the Respondents in Type of Houses

	Stone masonry	Concrete	Total
Ward No			
1	28		28
2	40		40
6	38	2	40
Grand Total	106	2	108

Source: Field Study, 2023

The analysis of economic status leans towards the types of houses with maximum households with stone masonry house i.e., 98.14% houses were not concrete. This data shows their economic status to be below the minimum threshold.

Key Findings of Demographic Data

In the study area, there is dominance of Dalit community as they compose 43.52% of total population. It is immediately followed by Chhetri community with 42.59% population. The 3 wards have abundance of economically active population as 52.52% people are aged between 16-60. Among them 52.18% are male population. In terms of literacy status, 93.93% population are literate. Almost all the households have their personal land ranging maximum in between 2-5 ropanies. The houses there are mostly stone masonry with very few concrete houses. Despite their education, 79.03% are dependent on Agriculture as their major income generation activities.

4.2 Examination of Food Security Situation

For the examination of food security situation, researcher has taken three variables as availability, accessibility, stability and utilization of food. Researcher has prepared a survey questionnaire that measures the satisfaction level of the households in terms of their food security situation in a 5-scale level.

4.2.1 Food Security Situation: Availability

Table 3: Distribution of the Respondents in Food Availability

Indicators	Highly dissatisfied	Dissatisfied	Neutral	Satisfied	Highly Satisfied
Domestic products sufficient for people	42	33	4	28	1
Food aid system availability in the village	76	7	3	22	0
Locally available products are not imported from urban areas	68	32	3	1	4
People producing sufficient food items	42	62	4	0	0
People producing surplus product	53	48	0	7	0

(Source: Field Study, 2023)

For examining the availability of food, 5 indicators have been chosen as sufficiency of domestic products, food aid system in village, import of food from urban areas, sufficient production of food and production of surplus foods. In the analysis, it was

found that most of the people (69.44%) believe that domestic product is not sufficient for them and 92.5% believe that they import the same products that they grow in their field from urban areas. Moreover, there is no any food aid system in the village as per 76.85% of total sample population. Since, all the 4 indicators reveals that the availability of food in the research area is scarce, the last indicator i.e., surplus production can never be achieved as per the view of 93.51% population.

4.2.2 Food Security System: Accessibility

Table 4: Distribution of the Respondents in Food Accessibility

Indicators	Highly dissatisfied	Dissatisfied	Neutral	Satisfied	Highly Satisfied
Satisfactory Family income status	8	81	1	18	0
Political factor favorable for food access	41	36	27	4	0
Economic factors favorable for food access	7	71	25	5	0
Social factors are favorable for food access	41	39	27	0	1
Equitable food distribution	40	37	21	5	5
Market infrastructure is good for food access	2	54	29	7	16
Food products are affordable to mass people	2	76	6	15	9
Food purchasing power of the people is good	22	46	11	17	12

(Source: Field Study, 2023)

The second variable for examination of food security i.e., accessibility of food has been studied with the help of 8 indicators as family income, political factor, economic factors, social factors favoring the food access, equitable food distribution, market infrastructure, affordable food for mass people and food purchasing power. In the

indicator to check the satisfaction level of people for sufficient family income, the researcher found that 82.40% of people were dissatisfied with the income. Moreover, more than half of the households thinks that the political factor, economic factor and social factors aren't favorable for food access either. More than 70% doesn't think that the food distribution is equitable. The same case is with the affordability of food and the purchasing power of people. looking at the equation, 69.79% of the people find the above indicators at unsatisfactory and highly unsatisfactory level and 17.01% are neutral and remaining 13.2% thinks the indicators are satisfactory.

4.2.3 Food Security Situation: Stability

Table 5: Distribution of the Respondents in Food Stability

Indicators	Highly dissatisfied	Dissatisfied	Neutral	Satisfied	Highly Satisfied
Adequate access to food on a periodic basis	8	81	6	10	3
Deteriorating nutritional status of the family	0	17	47	43	1
Weather condition are favorable for stability	0	53	45	10	0
Political condition is favorable for stability	2	54	45	6	1
Economical condition is favorable for stability	2	84	17	1	4
Family employment situations are favorable for stability	25	69	10	0	4

Source: Field Study, 2023

The third variable researcher has analyzed is the stability of food of the respondents. For measuring the stability, the researcher has put forward 6 indicators as adequate access to food on periodic condition, deteriorating nutritional status of family, weather condition, political condition and economic conditions favoring stability of food supply and employment situation for favoring stability. In the research, 82.4% aren't satisfied with adequate access to food on periodic basis. 40.7% of the respondents are of opinion that family's nutritional status has been worsening overtime and 43.5% are not aware of the fact. Similarly, more than half of the respondent are of opinion that the weather condition, political condition and economic conditions aren't favorable for the stability of food in their area. The last indicator has put more than 87.03% in the list of dissatisfied population that thinks family employment situation is favorable for stability.

4.2.4 Food Security Situation: Utilization

Table 6: Distribution of the Respondents in Food Utilization

Indicators	Highly dissatisfied	Dissatisfied	Neutral	Satisfied	Highly Satisfied
Having various nutrients in the food consumption	15	35	8	46	4
Having sufficient energy and nutrients intake	0	80	10	18	0
Maintaining good care and feeding practices	0	21	33	50	4
Maintaining food preparation hygiene	2	45	46	14	1
Diversity of the diet and intra-household distribution of food	0	62	37	9	0
Nutritional status of the entire family members	0	39	31	34	4

(Source: Field Study, 2023)

The last variable of Utilization has been prepared to check the usage pattern of the households. Indicators as consumption of nutritious foods, intake of sufficient nutrition, maintenance of feeding practice, food preparation hygiene, diversity of diet and nutritional status of entire family had been prepared. In the analysis, 46.29% are favoring the use of nutritious food as their basics and the same percentage thinks they don't have nutritious foods. Similarly, 74% thinks they don't have sufficient nutritious and energetic foods as their base utility. More than 45% are of opinion that they are maintaining good feeding practice but more than 45% thinks they are not maintaining good hygiene in food preparation. Similarly, more than 55% thinks they don't have diversity of diet. The last indicator rather got tied response i.e., around half of the population think nutritional status of entire family member is satisfactory and remaining half thinks it is unsatisfactory.

After a thorough survey and interviews on food security situation based on satisfaction level, the respondents had different levels of satisfaction but they leaned towards dissatisfaction as 85% and above were highly dissatisfied with availability of food for them. Likewise, 69.79% are also dissatisfied about the accessibility, 60.95% are dissatisfied about the stability and lastly 46.14% are dissatisfied about the utilization of food in their area. In a concise form, researcher has dug out that the overall situation on food security is not satisfactory for the majority of respondent households.

Key Findings of Examination of Food Security System

In the study of food security system, 4 major indicators have been used as availability, accessibility, stability and utilization. Majority of the people have negative thoughts on their satisfaction level in availability, accessibility and stability with more mixed thought on utilization.

The study shows that at least 70% of the respondents are of opinion that the domestic products and food items aren't sufficient for the locals so they are forced to import the locally produced goods; putting aside the concept of surplus food production with unavailability of food aid system. Similarly, more than 70% respondents are of opinion that the income of family is not satisfactory striking the affording capacity of people and deteriorating their food purchasing power. Furthermore, the political factors, social factors, economic factors and market infrastructure has been another hindering

stone for food access to the respondent peoples. Likewise, there is no equitable food distribution in the study areas.

In terms of stability, more than 70% are of the view that family employment situation, economical condition, political condition and weather condition are not favorable for stability of food.

Furthermore, the respondents equally vote on inadequate access to food on periodic bases but they still don't believe the nutritional status of their family is deteriorating.

Lastly, the utilization pattern of food suggests that people know they aren't having sufficient nutrition and energy intake as a result of insufficient diverse food items.

Despite their insufficient nutrition intake, they are well aware of good feeding practices, food preparation hygiene and nutritional status of whole family members. Thus, there is mixed reaction for utilization as people knows what's lacking but they aren't convinced of the deteriorating nutritional health.

4.3 Assessing the Factors Associated with Food Security

This objective tries to dig out the factors that are associated with food security and the status of the respondents on those factors. For this objective, 3 major variables with their respective indicators have been used.

4.3.1 Factors of Food Security: Community Level

Table 7: Distribution of the Respondents with Factors of Food Security: Community Level

Indicators	Highly dissatisfied	Dissatisfied	Neutral	Satisfied	Highly Satisfied
There is a good network of food market in the local level	0	25	49	6	28
There is good network of food collection and distribution or supply system in local level	0	23	51	30	4
Food pricing system in systematic and up to date	7	66	7	23	5
There is a good networking of transportation system	7	65	2	8	26
There is good network of social support system	0	74	3	31	0

(Source: Field Study, 2023)

The first variable has been addressed by the use of 5 different indicators. Comparatively, more respondents are of favor that there is good network of food market in local level as is for food collection and distribution system in local level. But 67.5% are of opinion that the food pricing system is not systematic. Similar figures of 66.67% and 68.51% are not satisfied with networking of transportation system and network of social support system respectively.

4.3.2 Factors of Food Security: Family Level

Table 8: Distribution of the Respondents with Factors of Food Security: Family Level

Indicators	Highly dissatisfied	Dissatisfied	Neutral	Satisfied	Highly Satisfied
Family level status is satisfactory	0	48	21	39	0
Family expenditure is more than family income	0	1	7	63	37
Farm based employment opportunities are available locally	8	59	14	20	7
Off farm-based employment are available locally	0	79	27	2	0

(Source: Field Study, 2023)

In the study of family level, there is a mixed sentiment of the respondent about the family level showing 44.44% not satisfied with family status and 36.11% are satisfied. The family expenditure being more than family income was one indicator where 92.5% were satisfied. Lastly, more than 60% respondents were of the idea that both farm-based and non-farm-based employment opportunities were available in the area.

4.3.3 Factors of Food Security: Individual Level

Table 9: Distribution of the Respondents with Factors of Food Security: Individual Level

Indicators	Highly dissatisfied	Dissatisfied	Neutral	Satisfied	Highly Satisfied
Family members are consuming sufficient food items	0	41	61	6	0
Family members are consuming nutritious food items	0	58	36	10	4
Family members are well educated	0	5	8	95	0
Family members are aware of good health and hygiene	0	1	10	76	21
Family income is sufficient for consuming nutritious foods	0	100	1	5	2
Family members are involving jobs or earning activities	1	39	40	5	23

Source: Field Study, 2023

In the survey in individual level, 1/3rd of the respondents thinks their family members aren't consuming sufficient food items whereas 1/2nd respondents think their family members aren't consuming nutritious foods. In terms of education and awareness about good hygiene, almost 90% are of the favor that they are well educated and are aware of good hygiene. The indicator that develops the idea of sufficient income for consumption of nutritious foods drew dissatisfaction of 92.59% respondents. The last

indicator to see whether family members are involved in earning activities have mixed reaction where almost 37% aren't involved and 26% are involved in earning activities.

Other than the above-mentioned variables, there has been no any awareness or capacity strengthening programs conducted in these households as per 104 respondents and 4 had once taken part in such types of programs. Moreover, the government has also not spent a penny on providing any additional facilities.

On the objective to access the factors associated with food security based on agreement scale of the respondents, the researcher found out that more households hold negative satisfaction level about the factors as well. In FGD done on community level, most respondents i.e., 49.44% were found to be not satisfied with network of food market, systematic food pricing and good social support system. In family level analysis, 45.13% are not satisfied on family status, availability of farm and non-farm-based employment. Lastly in individual level, substantial number of respondents thinks their family members aren't consuming sufficient and nutritious foods as a result of low income and job engagement of their family. Despite the fact that they are not getting enough and required nutritional foods, they are aware of the fact about nutritional requirements as most of them are well educated.

Key Findings of Assessing the Factors Related to Food Security

The factors associated with food security has been subdivided into three levels as community, family and individual level.

The community people opines that the network of food market, food collection, distribution and supply system in local level is somewhat satisfactory. But the food pricing system, networking of transportation system and network of social support system was not satisfactory as per the community members.

Likewise, there was unavailability of farm based as well as off-farm based employment opportunities as per more than 70% respondents. With the unavailability of farm and off farm-based employment opportunities, the family expenditure was found to be more than income and thus diminishing the family status level.

Similarly, the least family income sourced to the availability of job and people's involvement have directly affected the consumption of nutritious and sufficient foods items. This has been a hindrance to their physical and mental development. Despite them being educated and aware of the health and hygiene, their income has been determining their fate of low nutritious food consumption.

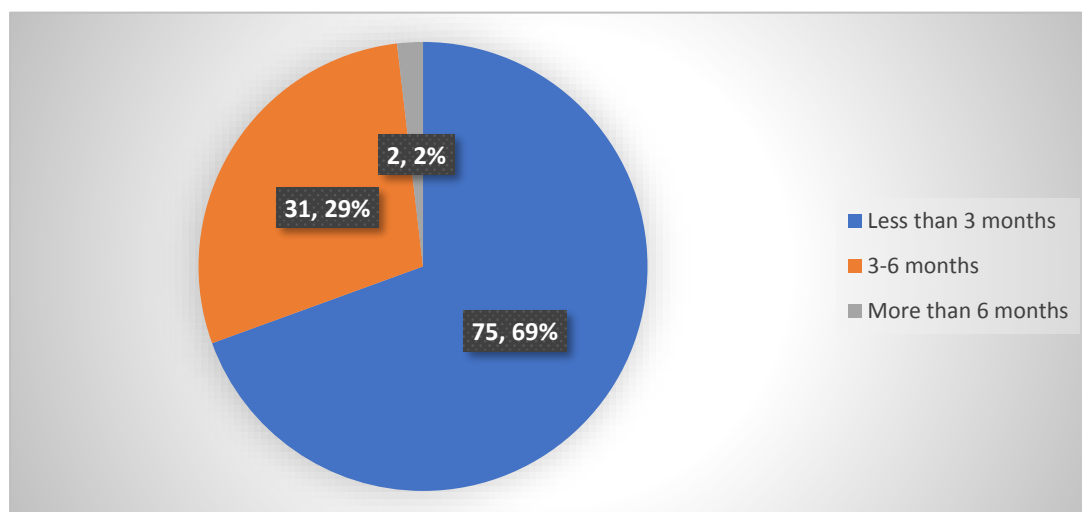
4.4 Causal Relationship Between Poverty, Hunger and Malnutrition

In between poverty hunger and malnutrition, researcher has opinion that there is a cause-effect relation i.e., a cause of one is the effect of another and so on. To justify the causal relationship between these three variables some basics on economy, nutrition and food habits has been dealt with.

The people of the survey area are engaged in subsistence agriculture system where they grow Maize, wheat, millet and barley. The production has some constraints on its sufficiency as around 3/4th households see themselves suffice for less than 3 months with a whole year farm yield.

4.4.1 Food Sufficiency Duration

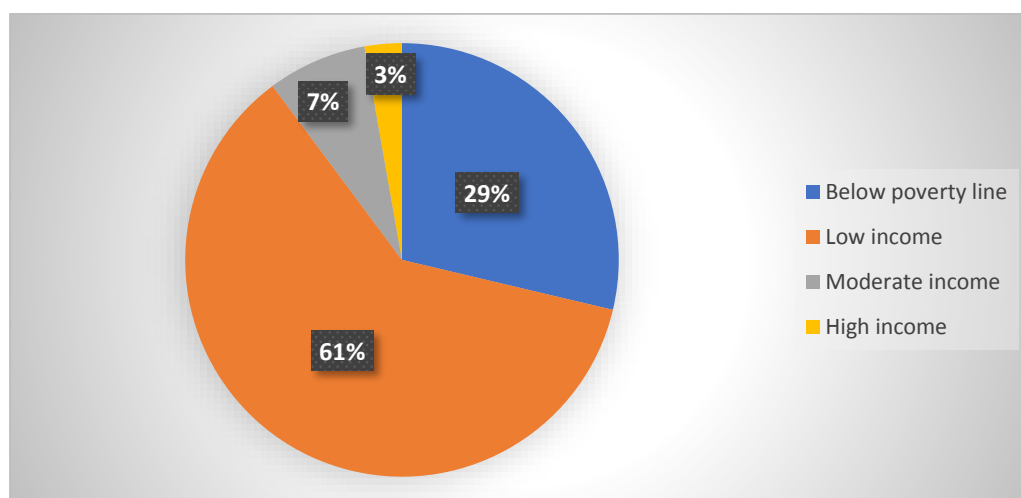
Figure 11: Distribution of the Respondents Status of Food Sufficiency Duration



(Source: Field Study, 2023)

4.4.2 Monthly Household Income

Figure 12: Distribution of the Respondents Status of Household Income



(Source: Field Study, 2023)

The economic condition of the sample area is not satisfactory as 61.11% have low income and 28.70% are under line of poverty. Only a mere 10.19% have moderate to high income level.

Table 10: Livestock Rearing Households

Livestock Rearing	Total no of HH
Yes	103
No	5

Source: Field Study, 2023

4.4.3 Status of Livestock (Quantity)

Table 11: Distribution of the Respondents Status of Livestock Production

Range in number	No of HH
Below 5	53
5 to 10	39
Above 10	16

Source: Field Study, 2023

4.4.4 Status of Livestock (Market Value)

Table 12: Distribution of the Respondents Status of Livestock Production

Range in Rs.	No of HH
Below to 50000	23
50000 to 100000	47
Above 100000	38

(Source: Field Study, 2023)

The distribution of respondents' livestock production income is as follows: 23 households earn below Rs. 50,000, 47 households earn between Rs. 50,000 and Rs. 100,000, and 38 households earn above Rs. 100,000. This highlights a diverse range of income levels within the surveyed population engaged in livestock production.

4.4.5 Status of Agricultural Production (Quantity)

Table 13: Distribution of the Respondents Status of Agriculture Production

Production in (KG)	No of HH
Below 500 KG	93
500 to 1000 KG	4
Above 10000 KG	11

Source: Field Study, 2023

From the above table, the production of the surveyed households is as follows: 93 households produce below 500 kilograms, 4 households produce between 500 to 1000 kilograms, and 11 households produce above 10,000 kilograms. This distribution illustrates significant variations in production levels among the surveyed households.

4.4.6 Status of Agricultural Production (Market Value)

Table 14: Distribution of the Respondent Status of Agriculture Production

Market Value	No of HH
Below to 50000	94
50000 to 100000	14

Source: Field Study, 2023

The economic status of family is totally controlled by their economic activities. The respondent households are active in both Livestock and Agriculture. 103 households among 108 are involved in livestock rearing. Looking at the range of livestock and their market value almost half of the respondents have number livestock below 5 crediting to value ranging to around 100000. In terms of agriculture production, 86.11% produce below 500kg valuing below 50000 per year. This production is not sufficient for whole year.

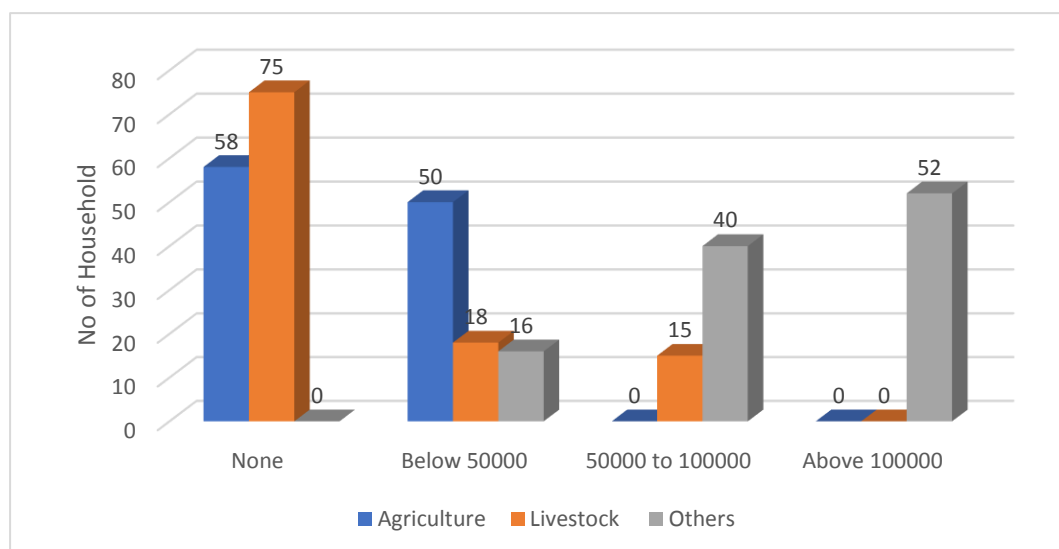
Table 15: Sufficiency of Food Production

Food production sufficiency in family	No of HH
Yes	0
No	108

Source: Field Study, 2023

4.4.7 Family Income Status

Figure 13: Distribution of the Respondents Status of Family Income



Source: Field Study, 2023

Looking at the family income, the main occupation being agriculture and livestock, most of the households have total income of less than 100000 with agriculture and livestock as main occupation. But people involved in remittance and salary are found to be earning more than a lakh per year as well i.e., more than 50% have other source

of income. Since they have subsistence agriculture system, the people here haven't taken loan with exception of 10 households who have taken loan up to 5 lakhs. With the income and loan taken comes the expenditure. The 66.67% respondents have been using their money from 50000 to 100000 for food items and 21.29% have expense of more than 100000 for food whereas 12.04% have their expenditure below 50000 for food. Likewise, 50% households have expenditure below 50000 for non-food items, 29.62% households have expenditure between 50000-100000 for non-food items and rest 20.38% use above 100000 for non-food items.

4.4.8 Loan Status and Interest Rate

Table 16: Distribution of the Respondents Status of Loan Possession and Interest Rate

Household Number	Range			Interest Rate				
	Below 1,00,000	1,00,000 to 5,00,000	Above 5,00,000	12%	24%	36%	48%	60%
10	2	8		0	3	7	0	0
98	0	0	0	0	0	0	0	0

Source: Field Study, 2023

The distribution of respondents' loan possession and interest rates is as follows: 10 households have loans below 1,00,000, with 3 at a 12% interest rate and 7 at a 36% interest rate. There are 2 households with loans between 1,00,000 and 5,00,000, and 8 households with loans above 5,00,000, of which 3 have a 12% interest rate and 5 have a 24% interest rate. Additionally, 98 households have no specified loan or interest rate information.

4.4.9 Family Expenditure

Table 17: Distribution of the Respondents Status of Family Expenditure

HH no	Below 50000	50000 to 100000	Above 100000	Total
Food items	13	72	23	108
Non-Food Items	54	32	22	108

Source: Field Study, 2023

The distribution of respondents' family expenditure status is as follows: Among 108 households surveyed, 13 spend below 50,000 on food items, while 72 spend between 50,000 and 100,000, and 23 spend above 100,000. Regarding non-food items, 54 households spend below 50,000, 32 spend between 50,000 and 100,000, and 22 spend above 100,000, indicating varying expenditure patterns within the surveyed population.

4.4.10 Balance Diet Consumption

Table 18: Distribution of the Respondents Status of Balanced Diet Consumption

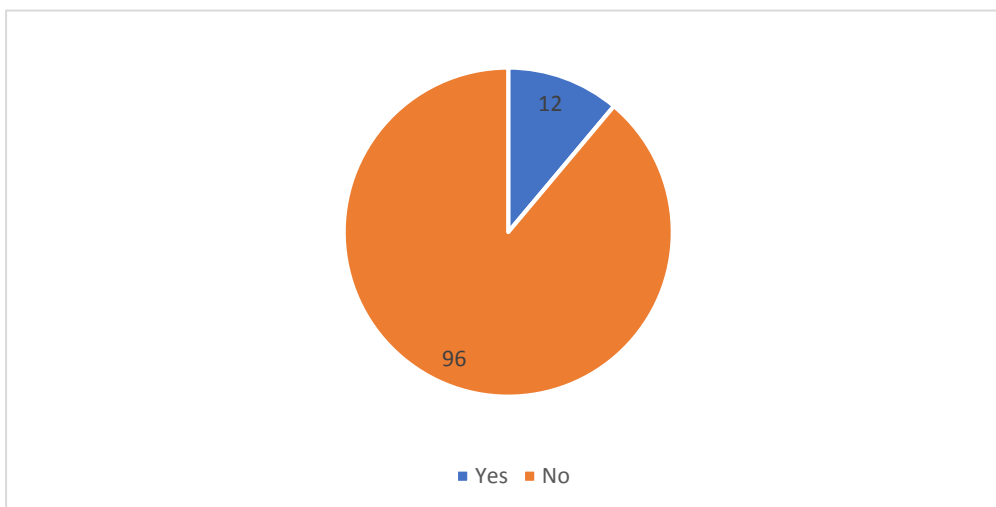
Indicators	Very Rarely	Rarely	Sometimes	Often
consumption of balanced meal	2	1	98	7
Skipping meal	1	63	38	6
Lack of regular nutritious meal affecting health family members				
Agree	92			
Disagree	16			
Food scarcity or hunger experience in the past six months				
Yes	27			
No	81			

(Source: Field Study, 2023)

The economic status of the respondents shows the people are not able to handle their dietary needs as per standard. 90.74% have their balanced meal each week, 40.74% skip their meal due to lack of resources leading to health issues due to their inability to consume nutritious foods. 75% households have not food scarcity in their last 6 months but the remaining have had faced which was solved with the help of relatives or loan.

4.4.11 Malnourishment status

Figure 14: Distribution of the Respondents Status of Malnourishment



Source: Field Study, 2023

From this above figure, 12 household has response that they are facing problem of the malnourishment problem.

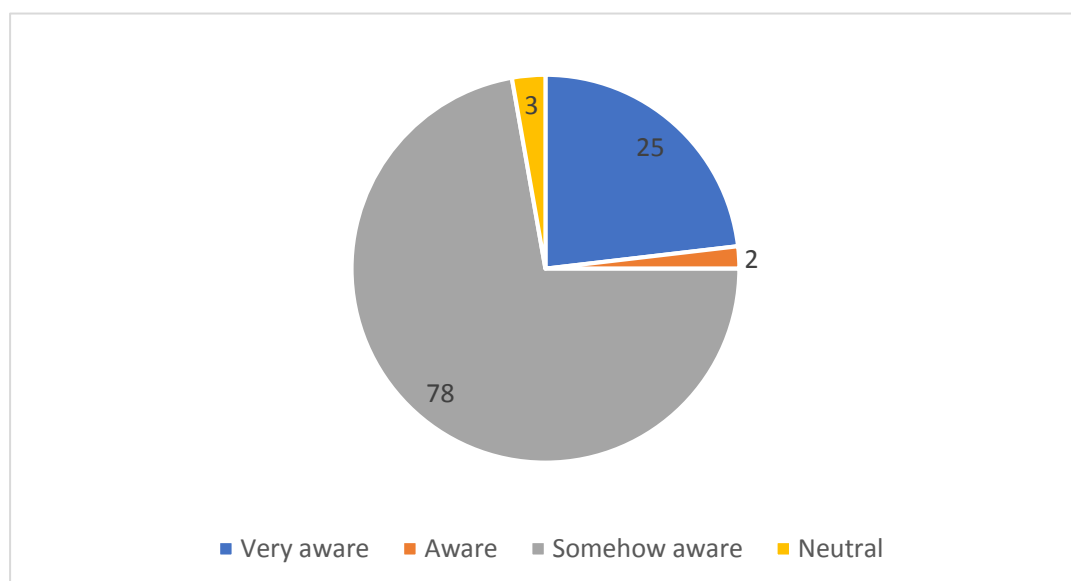
Measures taken to address the malnutrition issue
*Feeding of nutritious food items
*Referred to OTC center
*Providing the nutritious food supplement

Source: Field Study, 2023

Despite the fact that the respondent households have lesser income status, their food security status also seems to be in struggling phase. So, to totally understand the issue, researcher used malnutrition as one of the variables. Here in the total household, 88.89% households are of opinion that they are not malnourished but 11.11% households think they are malnourished.

4.4.12 Importance of Balanced Diet

Figure 15: Distribution of the Respondents Status of Balanced Diet Awareness



Source: Field Study, 2023

The survey responses indicate that a majority of the respondents, specifically 25 of them, are very aware of the importance of a balanced diet and its significant impact on preventing malnutrition. However, a smaller number of respondents, only 2, fall into the "aware" category, while 78 are "somehow aware," reflecting varying levels of awareness within the surveyed population regarding the critical role of balanced nutrition in combating malnutrition.

4.4.13 Poverty and Hunger Influencing

Table 19: Distribution of the Respondents Status of Poverty and Hunger Awareness

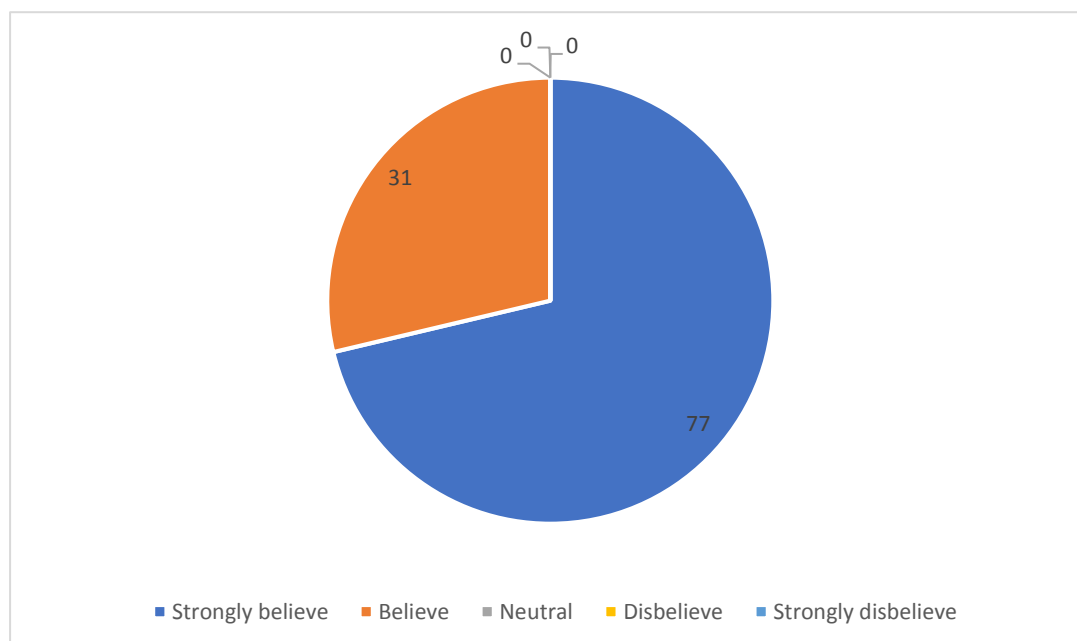
d. In your opinion, how do poverty and hunger influence each other in your community?	
Indicator	No of HH
i) They reinforce each other	108
ii) Poverty leads to hunger	0
iii) Hunger leads to poverty	0
iv) They are unrelated	0

Source: Field study, 2023

From the table, All the respondents are aware of poverty and hunger in which they reinforce each other.

4.4.14 Poverty and Hunger Influencing each Other

Figure 16: Distribution of the Respondents Status of Interconnection between Poverty and Malnutrition



Source: Field Study, 2023

With all the variables addressed the respondent were asked for their awareness level about importance of balanced diet and malnutrition where 100% respondents were somewhat to totally aware. Likely, all the households are of opinion that poverty and hunger reinforce each other and poverty and malnutrition come hand in hand. The only way to immobilize this bond as per respondent are:

* By creating employment opportunities in their family members at locality
* By creating employment opportunities in their locality
* Fertile the barren land and creating local employment
* Local government can organize the nutrition related awareness program to minimize the malnutrition.
* Local govt and non- govt are implementing program for the improving malnutrition

The last objective to identify the causal relationship between Poverty, Hunger and Malnutrition leads to survey, Interviews and Key Informant Interview. The major

findings of survey depict a picture where majority of the households doesn't produce sufficient food for their whole year consumption. Despite their involvement in livestock rearing and agriculture 85.15% households are living with very low income to remaining under poverty. The reason behind this can be attributed to low agricultural production and low-income level from other sources. Due to the lack of income, their expenditure for food is relatively low excepting them of balanced meal. Some households also were seen skipping meal at least once a day so to save for the other day. They are also of opinion that their health status has been impacted by lack of nutritious foods. But despite this status, loans from relatives and friends have been helping them consume their requirements thus preventing their household members from becoming underweight.

They strongly believe that poverty and malnutrition is interconnected and poverty and hunger reinforce each other to become more stronger as time passes.

Key Findings of Causal Relationship between Poverty, Hunger and Malnutrition

Despite their agriculture-based economy, 75.69% households' food production doesn't suffice for more than 3 months as more than 85% households' agriculture production is below 500kg. Other than agriculture-based economy, they are also involved in livestock production with majority of livestock's value between 50000 to 100000.

In the study of poverty and food sufficiency, 29% and 61% households were below poverty line and with low income respectively.

The dependence on agriculture and livestock have restricted the people's economy to a single spectrum where there is neither sufficient income nor sufficient food crops for year-long management. As a result, people are taking loan with maximum interest rate up to 36% per annum.

The low production, low income, loans and its interest have again suppressed their daily lives as more than 80% thinks that their intake is not as nutritious as it should have been. The households even have had their meals skipped in some days due to lack of food.

Despite their poverty, most of the households are at least intaking foods on regular basis boycotting the nutritional requirement.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATION

5.1. Summary

The study area, focusing on Ward no. 1, 2, and 6, has a diverse population with prominent Chhetri and Dalit groups in Wards 1 and 2, and Ward 6, respectively. The economically active age group represents 52.52 percent of the population, with a slight male majority 52.18 percent and a high literacy rate 93.93 percent. Agriculture is the dominant employment sector 79.03% percent and 98.14% percent of stone masonry houses quality.

Food security is a major issue with availability, accessibility, and stability which concerns to the part of utilization. Respondents express mixed sentiments about food markets, pricing, and transportation. Family-level factors show varied perceptions, while individual concerns relate to insufficient nutrition and diet diversity. Poverty, hunger, and malnutrition are interconnected issues with subsistence agriculture, low income, unemployment, low quality of health care services and skipping meals as key challenges.

The study suggests improving economic conditions, diversifying the food production to ensuring the food security, and promoting nutrition awareness for dietary supplement to break the cycle of poverty and minimize the rate of malnutrition in the community, offering valuable insights for policymakers and development initiatives.

5.2. Conclusion

In conclusion, the surveyed community faces numerous challenges related to food insecurity, driven by factors such as limited local food production, a lack of support during food shortages, financial constraints, unfair access to food, and external factors like employment instability, economic conditions, political issues, and weather disruptions. These challenges persist despite people's efforts to maintain their health. The pricing, transportation, and community support systems also contribute to these difficulties, leading to a cycle of poverty, hunger, and inadequate nutrition. To improve the situation, a multifaceted approach is necessary, including boosting local food production, creating job opportunities within the community, ensuring equitable food access, and providing nutrition education. These measures are crucial for

breaking the cycle of food insecurity, poverty, and poor health, ultimately enhancing the overall well-being of the community.

5.3. Recommendation

Tackling the interconnected challenges of poverty, hunger, and malnutrition requires a multi-faceted and comprehensive approach. Here are some recommendations to address these critical issues within a holistic framework;

- **Promote Agricultural Development:** Enhance agricultural productivity by providing farmers with improved seeds, fertilizers, and modern farming techniques. Promote sustainable agricultural practices, such as crop diversification, organic farming, and water-efficient irrigation systems.
- **Increase Access to Markets:** Develop and improve market infrastructure, including roads and storage facilities, to reduce post-harvest losses and improve access to markets. Facilitate access to larger markets through better transportation and connectivity.
- **Enhance Livelihood Opportunities:** Diversify income sources by creating non-farm employment opportunities in rural areas, including small-scale industries, agro-processing units, and service sectors. Provide training and capacity-building programs to enhance employability and entrepreneurship skills among community members.
- **Improve Education and Awareness:** Invest in quality education and vocational training to equip individuals with the skills needed to secure better job opportunities. Raise awareness about the importance of nutrition, health, and hygiene through community-based education programs.
- **Strengthen Social Safety Nets:** Implement targeted social protection programs, such as cash transfer schemes and food assistance programs, to support vulnerable households. Establish community-based support networks to provide a safety net during times of crisis.
- **Improve Healthcare Services:** Enhance access to healthcare services, particularly maternal and child healthcare, to reduce malnutrition and improve overall health. Implement nutrition-specific interventions, including the provision of vitamin and mineral supplements, especially for pregnant women and children.

- **Enhance Food Security:** Support local food production and distribution systems to reduce reliance on imports. Establish community-based food banks and storage facilities to address food shortages during lean seasons. Promote sustainable fishing practices and access to clean water sources for improved food security.
- **Advocate for Policy Reforms:** Advocate for policy changes that address the root causes of poverty, hunger, and malnutrition, such as land reforms, agricultural subsidies, and market regulations.
- **Empower Local Communities:** Foster community participation and empowerment through the establishment of local decision-making bodies and community-led development initiatives.
- **Monitor and Evaluate Progress:** Establish a robust monitoring and evaluation system to track the impact of interventions and adapt strategies as needed.
- **Collaboration and Partnerships:** Collaborate with government agencies, non-governmental organizations, local leaders, and international partners to leverage resources, knowledge, and expertise.
- **Raise Public Awareness:** Launch public awareness campaigns to mobilize support and resources for poverty, hunger, and malnutrition reduction efforts. Engage the media and influencers to advocate for these critical issues at local, national, and international levels.

REFERENCES

- Akhtar, & Ismail. (2011). *Food safety challenges - A Pakistan's prespective*. Crit. Rev. Food Sci. Nutr.
- Bauer, P. (1965). *The Vicious Circle of Povrty*. Springer, 4-20.
- Becker, J. (2021). *I must work to eat: Covid 19, poverty, and child labor in Ghana, Nepal and Uganda*. United State: Human Right Watch.
- Buttriss, J., & Riley, H. (2013). *Sustilable diets: Harnessing the nutrition agenda*. Food Chem.
- CBS. (2011). *Nepal living standards suvery 2010/11*. Kathmandu: Central Bureau of Statistics [CBS].
- CBS, GoN, & UNDP. (2014). *Beyond geography, unlocking human potential*. Kathmandu : National Planning Commission; Government of Nepal; United Nations Development Programme.
- Conference World Food. (1974). *World security*. World Food Conference.
- De Juan, A., & Pierskalla, J. (2016). *Civil war voilence and political trust; Micro level evidence from Nepal*. Conflict Management and Peace Science.
- FAO. (2008). *An introduction to the basic concept of food security*. FAO Food Security Program .
- FAO. (2009). *Declaration of the wold food summit on food security*. Rome: Food and Agriculture Organization of the United Nations.
- FAO. (2013). *Country nutrition profile- Nepal*.
- Gautam, K.C. (2010). *10+2 agenda for public helath in Nepal*. JNML: J. Nepal Med. Assoc.
- Ghosh, A; Adhikari, P., & Chowdhury,S.D. (2008). *Prevalance of undernutrition in Nepalese children*. Ann. Hum. Bio.

- Government of Nepal (1992). *Mother's milk substitutes (Control of sale and distribution) Act, 2049 (1992)*. National Law Commission. Kathmandu, Nepal: Government of Nepal.
- Government of Nepal, NPC (2015). *Sustainable development goals 2015-2030*. Kathmandu, Nepal: Government of Nepal, Nepal Planning Commission.
- Government of Nepal (2021). *National dairy development policy 2021*. Kathmandu, Nepal: Government of Nepal, Ministry of Agriculture and Livestock Development.
- Government of Nepal (2008). *National nutrition policy 2020*. Kathmandu, Nepal: Government of Nepal, Department of Health Services, Family Welfare Division.
- Government of Nepal (2019). *National food safety policy 2019*. Kathmandu, Nepal: Government of Nepal, Ministry of Agriculture and Livestock Development.
- Government of Nepal (2019). *National health policy 2019*. Kathmandu, Nepal: Government of Nepal, Ministry of Health and Population.
- Government of Nepal (2019). *Fifteenth plan (FY 2019/20–2023/24)*. Kathmandu, Nepal: Government of Nepal, National Planning Commission.
- Government of Nepal (2012). *Multi-sector nutrition plan II 2018–2022*. Kathmandu, Nepal: Government of Nepal, Nepal Planning Commission.
- Government of Nepal (2018). *The right to food and food sovereignty act 2018*. Kathmandu, Nepal: Government of Nepal, Ministry of Agricultural and Livestock Development.
- Government of Nepal (2017). *Local government operation act (LGOA) 2017*. Kathmandu, Nepal: Government of Nepal, Ministry of Federal Affairs and General Administration.
- Government of Nepal (2016). *Nepal zero hunger challenges national action plan, (2016-2025)*. Kathmandu, Nepal: Government of Nepal, Nepal Planning Commission.

- Government of Nepal (2016). *Nepal health sector strategy, (2016–2021)*. Kathmandu, Nepal: Government of Nepal, Ministry of Health and Population.
- Government of Nepal (2016). *Food-based dietary guideline 2016*. Kathmandu, Nepal: Government of Nepal, Ministry of Agriculture Development; Department of Food Technology and Quality Control.
- Government of Nepal (2015). *Constitution of Nepal*. Kathmandu, Nepal: Government of Nepal.
- Government of Nepal (2014). *Strategy for infant and young child feeding: Nepal 2014 (Draft)*. Kathmandu, Nepal: Government of Nepal, Child Health Division.
- Government of Nepal (2013). *Food and nutrition security plan of action (FNSPA) of Nepal*. Kathmandu, Nepal: Government of Nepal, Ministry of Agricultural Development.
- Government of Nepal (2016). *Agriculture development strategy 2015-2035*. Kathmandu, Nepal: Government of Nepal, Ministry of Agricultural Development.
- Krejcie, R., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement, 30*(3).
- Medicine, N. A., Education, D. B., & Years, C. A. (2019). *A roadmap to reducing child poverty*. National Academies Press .
- Muller Boker, U. (1999). *The Chitwan Tharus in Southern Nepal: An ethnoecological approach*. Franz Steiner Verlag .
- Nightingale, A. J., Bhattarai, A., Ojha, H., S.T., & Rankin, K. (2018). *Fragmented public authority and state un/making in the 'New' republic Nepal*. Modern Asia Studies.
- Nasser MS, Baig A, Nasser D. (2022). *Child stunting and economic outcomes in SAARC countries: The empirical evidence*. Research Square. DOI: 10.21203/rs.3.rs-1314101

- Regmi, M. (1970). *Revenue functionnaries in the eastern Terai districts*. Regmi Research Series 1.
- Regmi, M. (1976). *Land ownership in Nepal*. Delhi: Adroit Publisher.
- Regmi, M. (1987). *Bara, Parsa and Rauthat in A.D*. Regni Research Series, 10.
- Sen, A. (1999). *Development as freedom*. New York: Alfred Knopf.
- Sharma, K. (2012). *Malnutrition in children aged 6-59 months in Mugu district*. J. Nepal Health Res. Counc.
- UNDP. (2011). *Nepal human development report*. Kathmandu: UNDP.
- UNDP. (2013). *Human development report 2013*. New York: United Nations Development Programme.
- UNFPA Nepal. (2017). *Populations situation analysis of Nepal*. UNFPA Nepal.
- Wagle, U., & Devkota, S. (2018). *The impact of foreign remittance on poverty in Nepal*. *World Development*. Retrieved from 10.1016/j.worlddev.2018.05.019
- Webb P, Stordalen GA, Singh S, et al. (2018). *Hunger and malnutrition in the 21st Century*. *BMJ*. 361.
- WFO. (2020). *WFP Nepal country brief*. Kathmandu : World Food Organization-Nepal .
- Word Bank . (2021). *The world bank annual report 2021 : From Crisis to Green, Resilient, and Inclusive Recovery*. World Bank.
- World Food Summit . (1996). *Rome declaration on world food security*. Rome, Italy: Food and Agriculture Organization (FAO) of the United Nations.
- World Bank (2012). *Nutrition in Nepal: A national development priority*. Washington, DC: World Bank; 2012.

Annex I: Questionnaires

Assessing the relationship between poverty, hunger and Malnutrition

Thatikandh Rural Municipality, Dailekh

Section A. Household Characteristics

Name of the Family head:

Ward #

Cluster

Caste:

Religion:

Date:

Section A. Family Structure:

a) Members as per Age Groups;

i) 0 - 5 Yrs:

ii) 6-15 Yrs:

.....

iii) 16 -60 Yrs:

iv) Above 60:

b) Members as per Gender;

	Male	Female	Others	Total
0- 5 years:
5-15 years:
15- 60 years:
60+ years:

c) Members as per Marital Status;

i) Married:

ii) Unmarried:

iii) If other (Specify)

d) Members as per academic qualification;

i) Illiterate:

ii) Literate:

iii) Primary Level:

iv) Secondary Level:

v) Higher Secondary Level:

iv) Graduate Level:

v) if other (Specify).....

e) Members as per Occupation and annual income

	Male	Female
Agriculture
Business/ trade
Service (Govt/Private)
Daily wages
Foreign employment
Others

f) Assets (Fixed)

a) How much land do you own? (In hectare/ Ropani)

b) Housing;

i) Owned

ii) Rented

iii) Others

c) Kinds of House

Total numbers

Pakki (Lanter/Plastered)

.....

Non- Pakki (Kachhi Ghar)

.....

Section B. Food Security Situation based on Satisfaction Scale

a. Food security situation of the respondents

Measurement scales @ 1: highly dissatisfied, 2: dissatisfied, 3: Neutral, 4: Satisfied, 5: highly satisfied

	Items	1	2	3	4	5
Availability	People are producing sufficient food items					
	Domestic products are sufficient for people					
	People are producing surplus products					
	Local products are importing in urban areas					
	Food aid system available in the village					
	Accessibility	Family income status is satisfactory				
Political factors are favorable for food access						
Economic factors are favorable for food access						
Social factors are favorable for food access						
There is an equitable food distribution						
Market infrastructure is good for food access						
Food products are affordable to mass people						
Food purchasing power of the people is good						
Stability	Adequate access to food on a periodic basis					
	Not deteriorating nutritional status of the family					
	Weather conditions are favorable for stability					
	Political conditions are favorable for stability					
	Economic conditions are favorable for stability					
	Family employment situations are favorable for stability					
Utilization	Having various nutrients in the food consumption					
	Having sufficient energy and nutrient intake					
	Maintaining good care and feeding practices					
	Maintaining food preparation					
	Diversity of the diet and intra-household distribution of food					
	Combined good biological utilization of food consume status					
	Nutritional status of the entire family members					

Section C: Factors Associated with Food Security based on Agreement Scale

a. Affecting factors for food security

Measurement scales @ 1: Strongly disagree 2: disagree 3: Neutral 4: Agree 5: Strongly agree

Community level	Items	1	2	3	4	5
	There is a good network of food market in local level					
	There is good network of food collection and distributions or supply system in local level					
	Food pricing system is systematic and up to date					
	There is a good networking of transportation system					
	There is a good network of social support system is					
Family level	Family income status is satisfactory					
	Family expenditure is more than family income					
	Farm based employment opportunities are available locally					
	Off-farm based employment are available locally					
Individual level	Family members are consuming sufficient food items					
	Family members are consuming nutritious food items					
	Family members are well educated					
	Family members are aware with good health and hygiene					
	Family income is sufficient for consuming nutritious foods					
	Family members are involving jobs or earning activities					

b. What type of capacity/awareness strengthening program (for parents) implemented in your community?

.....
.....
.....

c. Did you or a member of your family participate in such a program?

i) Yes: ii) No:.....

d. If yes, what benefit do you get as a result/outcome of such a program? (Open-ended)

Received results/outcomes

.....
.....

e. Did you apply your gained knowledge from the supported training/outside visit on your daily life to improve poverty and malnutrition? (Open-ended)

.....
.....

f) Did you get any additional facilities from governmental personnels and offices? If yes, what types of facilities you received?

.....
.....

Section D. Assessment of Poverty, Hunger and Malnutrition

D.1) Poverty Assessment

a) What kinds of food/ crops do you produce from your land?

.....

b) How much time get sufficient in consuming your own food products?

i) 3 Months: ii) 3 to 6 Months:.....
iii) 6 to 9 Months:..... iv) 9 to 12 Months:

c) What is the status of your monthly household income (in NPR)?

i) Below Poverty Line:..... ii) Low Income:.....
iii) Moderate Income: iv) High Income:

d) How many Livestock and agriculture production do you have?

Livestock productions

<u>Items</u>	<u>Total no (Qty)</u>	<u>Market Value (In Rs.)</u>
Cow
Buffalo
Ox
Pig
Chicken/Ducks
Goats
If Others (Specify)

Agricultural productions

<u>Items</u>	<u>Quantity (Kg)</u>	<u>Market Value (In Rs.)</u>
Paddy
Maize
Wheat
Millet
Mustard Seeds
Patato
Onion
Garlic
Vegetables
Cash crops/fruit

e) Did your family get sufficient good items from your own agriculture production?

i. Yes

ii) No

f) Family income in a year;

a. Income from Agriculture production selling in the last 12 months;

	<u>Qty (KG)</u>	<u>Price</u>
Crop
Vegetable
Cash crop
Mustard Seeds

Vegetable	.....	.....	.....
Fruits	.....	.....	.....
Source of Meat	.....	.....	.....
Others	.....	.....	.....

Expenditure on non-Food items;

<u>Particulars</u>	<u>Qty (Pcs)</u>	<u>Per unit (Rs.)</u>	<u>Total (Rs.)</u>
Clothes
Medical treatment
Education
Festival occasions
Smoking/ Drinking
Transportation
Pay interest
Wood/electricity/gas
House rent
Others

D.2) Hunger Assessment:

a. How often do you and your family consume balanced meals (including all food groups Ex. Harek Baar Khana Char) weekly?

- i) Very Rarely: ii) Rarely:
- iii) Sometimes: iv) Often:
- v) Always:

b. How often do you skip meals to a lack of resources?

- i) Very Often: ii) Often:
- iii) Occasionally: iv) Rarely:
- v) Never:

C. Do you feel that the lack of regular nutritious meals has affected your health or the health of your family members?

- i) Strongly Agree: ii) Agree:
- iii) Neutral: iv) Disagree:
- v) Strongly Disagree:

d. Have you or any member of your household experienced food scarcity or hunger in the past six months?

i) Yes: ii) No:

e. Do you face/arrange this food scarcity or hunger? (Open-ended)

.....
.....
.....

D.3) Malnutrition Assessment:

a) Are you or any member of your household currently underweight or malnourished?

i) Yes: ii) No:

b) If yes, what measures have you taken to address the malnutrition issue? (Open-ended)

.....

c) where are you about the importance of a balanced diet and its impact on preventing malnutrition?

i) Very Aware: ii) Somewhat Aware:

iii) Neutral: iv) Somewhat Unaware:

v) Very Unaware:

d) In your opinion, how do poverty and hunger influence each other in your community?

i) They reinforce each other :

ii) Poverty leads to hunger :

iii) Hunger leads to poverty :

iv) They are unrelated :

e) Do you believe that poverty and malnutrition are interconnected?

i) Strongly Believe :

ii) Believe :

iii) Neutral :

iv) Disbelieve :

v) Strongly Disbelieve :

f. How do you think the local government and NGOs can contribute to breaking the cycle of poverty and malnutrition? (Open-ended)

.....
.....
.....

Annex II: Interview Questionnaires

Assessing the relationship between Poverty, Hunger and Malnutrition Thatikandh Rural Municipality, Dailekh

Household Characteristics:

- Can you briefly describe your household's socio-economic background?
- How many family members do you have, and what are their age groups?

Poverty:

- Did your family get sufficient food items from you own agriculture production?
- What was your family expenditure during the past 12 months?
- What was your family income during the past 12 months?
- Did you borrow any kind of loan during the past 12 months?
- How do you perceive the relationship between poverty and food insecurity in your community?

Hunger:

- What is the food security situation on the basis of availability and accessibility?
- What is the food security situation on the basis of stability and utilization?
- What are the key factors affecting food security on the basis of individual, family and community?
- How does the availability of food in your community impact your family's well-being?

Malnutrition:

- Are there members in your household who have experienced malnutrition or weight-related health issues?
- What do you believe are the main causes of malnutrition in your community?

Community Resources:

- Are there community-level initiatives or resources that help families combat hunger and malnutrition?
- How do you think local government or NGOs could improve food security and reduce poverty in your area?

ANNEX III- KII Guideline

1	Respondent Name	
2	Name of institutions	
3	Department/ Unit	
4	Designation	
5	Ward no	
6	Address	
7	Years of Experience in the Field	

1. How do you define poverty, hunger, and malnutrition in the context of your work?
2. From your perspective, how are poverty, hunger, and malnutrition interconnected? Can you describe the relationships between these issues?

Causes and Contributing Factors:

1. What are the primary drivers of hunger, especially in impoverished communities or regions?
2. How does poverty influence dietary choices and nutritional status among individuals and families in low-income areas?
3. Are there specific social, economic, or environmental factors that exacerbate malnutrition in impoverished areas?

Consequences and Impacts:

- 1) Is there any causal relationship between poverty hunger and malnutrition?
- 2) In your experience, what are the most significant consequences and impacts of the poverty, hunger, and malnutrition?
- 3) From your perspective, what are the key components of a comprehensive approach to tackling the interrelationship between these issues?

Annex IV- FGD Agendas

1	Date:	
2	Location	
3	Name of Facilitators	
4	Name of note- taker	
5	Type of participants	

Poverty

- a) Situation of poverty in the community and affecting factors of poverty.
- b) Sufficiency of food items produced form the own land.
- c) Trend of borrowing loan and interest rate.
- d) Status of family income and expenditure in the community.

Hunger

- a. Situation of food availability, accessibility, stability and utilizations.
- b. Affecting factors for food security in individual, family and community level.

Malnutrition

- a. Awareness of malnutrition and its causing factors.
- b. Consuming of local products and diversity of food items. (Harek Baar Khana Char)

ANNEX V- Photo Gallery

Interview, FGD, KII and Household Survey



Researcher survey