



UNIVERSITY OF RWANDA

**COLLEGE OF ARTS AND SOCIAL SCIENCES
CENTER FOR CONFLICT MANAGEMENT**

MASTERS PROGRAMME IN SECURITY STUDIES

**RURAL URBANIZATION AND FOOD
IN/SECURITY: A CASE STUDY OF
BUGESERA DISTRICT**

This thesis is submitted to the University of Rwanda in partial fulfillment of the Academic requirements for the Award of a Master's degree in Security Studies

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Nyakinama May, 2019

DECLARATION

I hereby declare that the study on “*Rural urbanization and food in/security, a case study of Bugesera District*” is my original work, that has not been to my best knowledge submitted and presented to any university of higher learning for a similar award, and that all sources I have used and quoted have been acknowledged by complete references.

Signature.....

Date.....

Mr. San Antonio MUHIZI

DEDICATION

I dedicate this work to the Almighty God who enables us for any commitment. Special dedication to my wife **UMUTESI Gakwandi Nicole**, **my Kids, brothers, sister, my mother and classmate** for their unprecedented support through my life, and to all friends for their devotion and courage that have led to the completion of my studies and this research.

ACKNOWLEDGEMENTS

The final product of this research project is not the result of the effort of one person but a combination of participation of different persons.

First and foremost I thank the Almighty God who has been taking care of me and keeping me strong and done everything for my best.

My acknowledgements and thanks go to all those who have helped me in one way or another way to write up this work, the staff of UR.

I am indebted to my supervisor **Dr Ezechiel SENTAMA** for the assistance and willingness he showed me to complete this Thesis. I appreciate his understanding and generosity in availing time to allow me to complete this dissertation.

It is not possible to thank all of you in person, as this may not be sufficient or exhaustive in coverage, extent and depth.

However, special thanks go to my fellow friends who have been together with me during my studies, and who managed to provide any kind of support during this period.

Mr San Antonio MUHIZI

ABBREVIATIONS, ACRONYMS AND SYMBOLS

AIDS: acquired immune deficiency syndrome

CFSVA: Food Security and Vulnerability Assessment

EAC: East African Community

EDPRS: Economic Development and Poverty Reduction Strategy

FAO: Food and Agriculture Organization

HIV: Human Immunodeficiency Viruses

IFAD: International Fund for Agriculture Development

IFRCRCS: International Federation of Red Cross and Red Crescent Societies

IRC: International Rescue Committee

LDCs: Less Developed Countries

MDG: Millennium Development Goals

MIGEPROF: Ministry in charge of Family and Women Promotion

NISR: National Institute of Statistics of Rwanda

OECD: Organisation for Economic Co-operation and Development

RADA: Rwanda Agricultural Development Authority

TA: Thematic Analysis

UN: United Nations

UND: University of North Dakota

UNDESA: United Nations Department of Economic and Social Affairs

UNDP: United Nations Development Programme

UNICEF: United Nations Children's Fund

USAID: United States Agency for International Development

WB: World Bank

WFP: World Food Programme

WFS: Worldwide Flight Services

WHO: World Health Organization

LIST OF TABLES

Table 1: Participants' identification.....	27
Table 2: Situation of food security in Nyamata city	37
Table 3: Main causes of urban food vulnerability factors in Nyamata city.....	40

LIST OF FIGURES

Figure 1: Theoretical framework of the process driving food insecurity	14
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LIST OF APPENDICES

Appendix 2: Interview guide with local people residing in Bugesera District	iv
Appendix 3: Key Informant Interview Schedule for Local Authorities	v

TABLE OF CONTENTS

DECLARATION	i
DEDICATION	ii
ACKNOWLEDGEMENTS	iii
ABBREVIATIONS, ACRONYMS AND SYMBOLS	iv
LIST OF TABLES	v
LIST OF FIGURES	vi
LIST OF APPENDICES	vii
TABLE OF CONTENTS.....	viii
ABSTRACT.....	xiii
CHAPTER ONE: GENERAL INTRODUCTION	1
1.0. Introduction.....	1
1.1. Background of the study	1
1.2. Problem statement.....	3
1.3. Research purpose and objectives	5
1.3.1. Specific objectives	5
1.4. Research question	5
1.5. Significance of the study.....	5
1.6. The scope of the study	6
1.7. Organization of the Study	6
CHAPTER TWO: LITERATURE REVIEW	8
2.1. Introduction.....	8
2.1.1. Concept of rural urbanization	8
2.1.2. Concept of food insecurity.....	9
2.1.3. Rural-urbanisation and food availability.....	10
2.1.4. Rural-urbanisation and Food Access	11
2.1.5. Rural-urbanisation and Food Utilization.....	12
2.1.5. Rural-urbanisation and Food Stability	12
2.2. Conceptualization of food security	13
2.2.1. Food security in global perspective	15
2.2.2. Food security in African perspective	16
2.2.3. Food Security in Rwandan perspective.....	18
2.3. Conceptual framework.....	21
2.4. Theoretical framework.....	23

CHAPTER THREE: RESEARCH METHODOLOGY	24
3.0. Introduction.....	24
3.1. Description of study area	24
3.2. Research Design.....	25
3.3. Population of the study	25
3.4. Sample size	26
3.5. Sampling techniques	26
3.5.1. Purposive Sampling	26
3.6. Sources of data	27
3.7. Data collection instruments.....	28
3.7.1: Semi-structured interview	28
3.7.2. Documentation.....	28
3.8. Data analysis	28
3.9 Ethical Considerations	29
CHAPTER FOUR: RESULTS AND DISCUSSION	30
4.0. Introduction.....	30
4.1. Presentation and interpretation of findings by using thematic analysis	30
4.1.1. Theme1. To find out the factors of rural urbanization in Bugesera District	30
4.1.2. Theme2: To investigate on how rural urbanization affects food in/security in Bugesera.....	36
4.1.3. Theme3: To suggest the possible measures to enhance both adequate rural urbanization and food insecurity in Bugesera District.....	44
CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS	48
5.1. Conclusion	48
5.2. Recommendations.....	49
5.3. Areas for Further Research	51
REFERENCES AND BIBLIOGRAPHY	52
APPENDICES	55

ABSTRACT

This research was about rural urbanization and food in/security, a case study of Bugesera District. This research used entitlement theory of Amartya Sen's (1980:9). Sen underlined that every human being is entitled to access on food, water, and other basic needs. The failure to achieve their endowment leads to people starvation and hunger. The general objective was to determine how rural-urbanization affects food in/security, Case study of Bugesera District while the specific objectives were to find out the factors of rural urbanization in Bugesera District, to investigate on how rural urbanization affects food in/security in Bugesera District and to suggest the possible measures to enhance both adequate rural urbanization and food in/security in Bugesera District. This study adopted descriptive design by using qualitative approach. The purposive sampling was adapted to select 12 respondents. Data collection tools were interview as well as documentation and analyzed by using thematic analysis. The main factors of rural urbanization in Bugesera District are unemployment or underemployment in rural areas, low wages and lack of land. Regarding the effect of rural urbanization on food in/security in Bugesera District. The findings revealed that rural-urbanization affect food availability, accessibility and utilization which are characterized by low food supply, anxiety about food supply, uncertainty about future food supply and lack of choice of what to eat due to high price of food. About the possible measures to enhance both adequate rural-urbanization and food security in Bugesera District, the finding indicated that the best strategies are modern agriculture, promoting irrigation for small farmers and addressing urban food insecurity.

Key words: Rural-urbanization and food insecurity

CHAPTER ONE: GENERAL INTRODUCTION

1.0. Introduction

This chapter indicates the background of the study, statement of the problem, research objectives, research questions, and significance of the Study scope and limitations and organization of the study.

1.1. Background of the study

Urbanization is existed long ago in human history. The there is much evidence indicated that a high urbanization in Britain started from 25.9 % in 1776 to 65.% in 1871 this is due to the improvement in industrialization in European countries (williamso et al.,1988:78). Rural urbanization is going hand in hand with other social problems like food insecurity because more 50% of the human being in the world, or 3.9 billion who live in the cities and also this number is continue to growth by 2050 (Daonado,2016:6). Therefore, the continual changes in food production patterns have continued to change in rural and urban area and there is a need to establish consistent policies that are aimed to address this phenomenon.

There is also cumulative consideration and contract that the positions between urban and rural are distorting and more integrated methods are important in order to attain food security and nourishment for all (Food and Agricultural Organization, 2003:6). Urban food insecurity and the underfeeding that monitors are being determined by quick, unplanned urbanization. Sub-Saharan Africa's cities are rising at an annual rate of 4 percent faster than ever before in history and accountable government establishments cannot offer the services, infrastructure and employment the city residents need. By 2050, Africa's people will double to 2 billion and more than half will live in urban areas (William Garvelink, 2014:76).

The shortage of food in worldwide has been addressed as one of the biggest problem for over several decades until now. One of the motives for food insecurity in the world is the outcome of people growth. According to (UN, 1999) the world people stretched 6 billion and projected the population will exceed 8 billion by 2025 an growth of 2 billion people in just 26 years. While agriculture manufacture of food continues to be the same, the increase of people will have an effect on food supply and food security. Food insecurity in the world is the outcome of inability

of the countries to harvest adequate food, inequality of food delivery within the country or for certain merchandises, an inequity of distribution between countries or the incapability of certain sectors of the public to obtain a nutrition of enough quality (Robison, 1983). Increasing life condition in the world also put more density on food request. These changes in people's living conditions alongside with people and nutritive favorites, mainly define variations in the demand of food (Bender and Smith, 1997:51).

In emerging countries, facts for food insecurity contain inadequate advertising structures, lack of adequate road for transport and communication networks; climate variation, need exceeding supply, ineffective food catastrophe managing and resource deprivation (IRC, 2008:76). Food insecurity has affected millions of society worldwide who suffer from famine. FAO, (2010:41), approximates that, one third of world people are needing food security global and around 925 million people are regularly starving due to dangerous scarcity, while up to 2 billion people lack food security occasionally due to changing points of scarcity. Because of food insecurity, six million children die of famine every year, 17,000 every day from famine associated causes (UN, 2009, WHO, 2006:11). In 2010, 17.2 million families, 14.5 percent of families approximately one in seven, were food insecure, the maximum number ever registered in the United States (Coleman-Jensen, 2011:65).

In Africa, food security is one of the grave difficulties. Sub-Saharan Africa is the only region in the world where undernourishment, a result of food insecurity is not reducing. The major challenge to food security in Africa is low productiveness soils, and conservational deprivation. Ninety five percent of the food in Sub-Saharan Africa is grown under rain fed agriculture hence; food production is weak to contrary climate situation. The soils continue to destroy leading to a decrease in the efficiency of the ranches (Mwaniki, 2006:77).

In the past several years, two regions had experienced the most severe food security crises: Bugesera Region in Eastern Rwanda and Umutara Province in the Northeast. More recently, there was concern that civil insecurity would once again disrupt rural livelihoods in the Northwest. Therefore, Bugesera District, continue feel pain from excessive difficulties when trying to avoid food insecurity, undernourishment of their children, and primary revenue

producers. Their poor access to infrastructure in rural areas limit their chances, and are found using more time than urban residents on generative and domestic work. Traditionally assigned parts precise to gender also place weightier problems on rural females than males (MIGEPF, 2017:34).

Low food prices are good for current food security, but they are not necessarily conducive to agricultural development and long-term food security. Under current conditions of low productivity, low prices mean lower farm incomes and difficult access to modern inputs. Also, the rate of fertilizer use is not likely to increase with the currently low prices (Dando, 2012:3). In Bugesera District as an area which has a heavy dry season, food security is sometimes critical. Despite many government interventions in different agricultural support, some people do not receive sufficient harvest. Therefore, there is a need of government to educate them about modern irrigation methods that is used by few of people in Bugesera District. This research intended to sensitize the resident in Bugesera District to use mechanized irrigation towards food security.

1.2. Problem statement

Every human being has right to food and he is entitled to have access on it at all time without any kind of discrimination. Therefore, food security is prerequisite concerns of all states in order to achieve economic and political stability. Hence, none of human being is discriminated to food security (FAO, 2011:56). However, basing on the Report of Food Crises indicated that food insecurity is continuing to be a worldwide problem and has affected a big number of people in the world. It indicated that 123 million of people were affected by food insecurity. Futhermore, the main source of food insecurity in the world are conflicts and state insecurity. Thus, it is indicated that food insecurity continues to be a major problem in worldwide countries and requires strong measures to deal with this alarming issue (Kankesha, 2018:23).

Rapid rural urbanisation driven by people seeking affordable land for construction of residential premises is bothering into arable land around Rwanda's administrative centres, raising questions about food production in the future (Johnson, 2017:1). Most affected are districts bordering Kigali City and those hosting secondary cities. Under pressure from growing demand, districts

have had to revisit their master plans or accept land use adjustments after areas that were zoned for agricultural production became fragmented. Similarly, the conversion of arable land to residential purposes is the result of the creation of the upcoming suburbs of Muyumbu in Rwamagana, Nyamata in Bugesera and Shyorongi in Rulindo district (Johnson K, 2017:.2). Rwanda has one of Africa's fastest urbanisation rates due to a rising people on a small land-living area. The country has a surface area of 26,338 square kilometres. Projections indicate that 35 per cent of the country's population will be living in urban centres by 2020 up from 17 per cent today (Kankesha, 2016:3). District master plans provided for areas for agglomeration, locally known as Imidugudu, in most rural parts, but the influx of people in most cases exceeded the designated space, hence encroaching on the available cultivable land. Under the Imidugudu, settlements were placed on marginal land where agriculture was not very viable (Kankesha, 2016:4).

The 2017 Comprehensive Food Security and Vulnerability Analysis indicated that over 70 per cent of Rwandan households' source food from the markets (Johnson K, 2017:1). This is despite official figures categorizing over 70 per cent of Rwandan population as farmers. This means that the more arable land gets converted to other purposes the less the number of people engaged in food production, and the more market-dependent people for food the country will get, making it harder to avert food insecurity. As many as 460,000 families (21 percent) have unacceptable food consumption and may be measured food insecure (USAID, 2017:1). Minagri officials however described the country's urbanisation trend as inevitable but insisted local authorities adhere to the provisions of the master plans categorizing land use if the national food needs are to be met¹. There could be compelling reasons for some authorities to divert cultivable land to non-agrarian purposes, but it is regrettable given the size of our country and the demography.

According to Nsengiyumva (2018), concerns over food security would not arise if the available cultivable land size was maintained and fully utilized to maximize production potential. Bugesera District is one of the districts that have attracted an influx of people over the past few years. The growing need for residential space saw hundreds of hectares on its arable space converted into the now popular and fast-growing suburbs of Nyamata and Ririma. To our

¹National Statistics of Rwanda (2018). *The status of food security in rural households of Rwanda*. Kigali.

knowledge, no studies have been previously conducted to specifically assess the effect of rural urbanization on food insecurity in Rwanda. According to the research conducted by Ansoms (2008:56), he focused on examining the outcomes of LCP in Rwanda and found that about 83 percent of the population depends on food production. Indeed, his research focuses on food productivity, which is one of the defining aspects of food security. Otherwise, he did not identified how rural-urbanization has effect on food insecurity. The contribution of this research is to fill this gap and to provide scientific knowledge of the relationship between rural urbanization and food insecurity with a case study of Bugesera District. Against the above statement, the researcher wants to answer the following question: How rural-urbanization affects triggered food in/security in Bugesera District?

1.3. Research purpose and objectives

To determine how rural-urbanization affects food in/security, Case study of Bugesera District.

1.3.1. Specific objectives

The study has the following research objectives:

1. To find out the factors of rural urbanization in Bugesera District
2. To investigate on how rural urbanization affects food in/security in Bugesera District
3. To suggest the possible measures to enhance both adequate rural urbanization and food in/security in Bugesera District.

1.4. Research question

The study seeks out to address the following research questions:

- 1) What are the factors of rural urbanization in Bugesera District?
- 2) How does rural urbanization affect food in/security in Bugesera District?
- 3) What are the possible measures to enhance adequate rural urbanization and food in/security in Bugesera District?

1.5. Significance of the study

This research will help the researcher to get some information about the relationship rural urbanization and food in/security in Bugesera District. It will help future researchers to find

findings and recommendations generate the needed information that would be used by various stakeholders' food security.

One of the most important reasons why rural urbanization often is viewed mainly as problematic is the tendency to see it apart from broader processes of socio-economic change. This is especially the case in sub-Saharan African countries, despite the fact that urban growth, here probably more than somewhere else, is closely related to transformations in the agricultural sector and to the impacts of such transformations on rural livelihoods (Tacoli 2002). Urbanization or rural-urban migration has important impact on rural livelihoods, through for instance the demand for foodstuffs, the sending of remittances and other contributions by urban-based relations, and so on (Agergaard et al, 2010).

Therefore, this research will provide recommendations to national governments and local governments of rural areas and cities to be familiar with the rural-urban linkages in their country, the consequences of their policies on rural and urban areas and the negative or positive role they can have in poverty reduction and improvement of rural livelihoods. Basing recommendation from this research, the government of Rwanda and its stakeholders will gain better insights in the relationships between rural urbanization and food in/security and how they can take possible measure to address food in/security in Bugesera District as our case study.

1.6. The scope of the study

Geographically, this study carried out in Bugesera District, Eastern province and covers a selected sample of people living in Bugesera District. In relation to content scope, this research is aimed at investigating on rural urbanization and food in/security in Bugesera District. About time, scope, this study cove the period from (2013 to 2018) where this district marked a high increase in rural urbanization.

1.7. Organization of the Study

The general introduction as chapter one of the present researches covered; the introduction, research problem, research question(s), objective of study, significance and the scope of the study. Chapter Two dealt with Theoretical framework covering aspects of definition of concepts,

independent variables (Causes), dependent variable (effects), review of existing theories (Empirical studies that support each theory), analysis models (related to the topic) and conclusion. Chapter three look at the Research Methodology and it included introduction, description of study area, population and sample, data collection tools, data analysis & interpretation and conclusion. Chapter four consisted of results and findings, including introduction, respondents' characteristics, and findings on Independent Variable, Findings of Dependent Variable, relationship between independent and dependent variables, and conclusion and Chapter five dedicated to General Conclusion and Recommendations.

CHAPTER TWO: LITERATURE REVIEW

2.1. Introduction

The literature review is deal with the clarification of existing document that the researcher consulted in order to clarify the research basing on the research objective (Polit, 1995). This chapter is composed by definition of key concepts of key concepts related to research topic, theoretical framework and related literature in accordance with research objectives. Rwanda is facing a fast rate of urbanization and is establishing an urban framework to accommodate growth in a well-managed manner. Major aspects of an urbanization which is sustainable, are an improved access to adequate infrastructure and services, safety, quality, education, health care facilities and food security. The welfare of the population is the central point, regardless of gender, age, and economic, social or cultural background (Republic of Rwanda, 2015:7).

2.1.1. Concept of rural urbanization

The concept of urbanization and rural urbanization are difficult to define but some demographers defined it as the increasing of people who live in urban areas (Poston and Bouvier, 2010: 307–311).

Urbanization are separately defined in accordance with countries but the shared views is that all those definitions regard about the people settling in densely area than rural area because of different facilities like water, electricity, health services and financial services to name few (Buettner, 2014).

The concept of urbanization is differing from urban population growth but the two concepts are often conflated, creating considerable mischief. While urbanization is conceptualized as an increase in urban share, if urban and rural population are increasing at the same level. On the other hand, if the total population not changing while urban share is rising, the urban population growth is resulted from urbanization and the level of urbanization (the rate of increase in the share of the population living in urban areas) is equal to the rate of urban population growth.

In the majority of urbanized countries the total population also increase, and it is ease to differentiate the share of urban population growth resulted from the share that is the outcome of overall population increase (to a close approximation, the rate of urban population growth equal to the rate of urbanization plus the rate of overall population growth). Therefore, rural-

urbanization resulted from migration from one place to other place and it is reasonable to treat it as such.

Therefore, rural-urbanization is resulted from the complex migratory movements between rural and urban area including circular migration back and forth. In addition, net rural-urban migration can be as much the result of people migration back and forth

Urbanisation is primarily the result of migration, and it is reasonable to treat it as such. However, urbanisation is not just the result of rural–urban migration, particularly if rural–urban migration is taken to mean long-term rural dwellers moving permanently to urban centres. First, urbanisation is the net result of complex migratory movements between rural and urban areas, including circular migration back and forth.

2.1.2. Concept of food insecurity

Food shortage is a global problem that is affecting the world population and there was different measures that were established numerous measures to reduce this issues. The major factor of lack of food in worldwide is that the population increases rapidly while the earth remains constant. According to (UN,1999) the current number of worldwide population is 6 billion and it will increase to 8 billion by 2025, this means that the two billions of people will be augmented to 2 billion of population in 26 years. The population increased geometrically while food production increase arithmetically and the results is food insecurity. Indeed, food insecurity exist when there is people's inability to access and buy of food, unequal distribution countries' resources and some commodities and this poses a major threat to food security in different countries (Robison, 1983).

The growth of population increased more while there are limited natural resources to produce food for their survival. Changes in people's life conditions go hand in hand with food preference and this indicated the change of population structure due to the increase of population (Bender and Smith, 1997:51). Third world countries indicated the effect of foo insecurity which are allow different causes of food insecurity which are lower marketing, lack of control in food production, poor mean of transport and communication, weather change, demand of excessive, inability to conserve and protect environment (IRC, 2008:76).

Food insecurity has affected millions of people worldwide who suffer from hunger. FAO, (2010:41), estimates that, one third of world population are lacking food security worldwide and around 925 million people are chronically hungry due to extreme poverty, while up to 2 billion people lack food security intermittently due to varying degrees of poverty. Because of food insecurity, six million children die of hunger every year, 17,000 every day from hunger related causes (UN, 2009, WHO, 2006:11). In 2010, 17.2 million households, 14.5 percent of households approximately one in seven, were food insecure, the highest number ever recorded in the United States (Coleman-Jensen, 2011:65).

African states have faced by a serious problem to produce food for them and this lead to production to be low. Sub-Saharan Africa is the only region in the world where malnutrition, an outcome of food insecurity is not declining. The major challenge to food security in Africa is low fertility soils, and environmental degradation. Ninety five percent of the food in Sub-Saharan Africa is grown under rain fed agriculture hence; food production is vulnerable to adverse weather conditions. The soils continue to degrade leading to a reduction in the productivity of the farms (Mwaniki, 2006:77).

2.1.3. Rural-urbanisation and food availability

According to FAO (2011) the process of rural urbanization has negative impact to food security in terms of its supply and its production process. Today there is growing number of people living in the cities and the rural area are also become the second cities. This situation can exert changes the in which the agricultural production was structured in rural area. Futhermore, agricultural sector become unable to produce sufficient food for those people who live in the cities. In general, understanding all people living in urban area buy their food from rural area but the big problem is that those people who occupy agriculture are mostly poor and they have power to purchase their full basic needs. The reason behind on this situation is that those farmers produce food for their house only and they do not produce food for market (FAO, 2011).

According to Veenhuizen (2006:8) the effect of rural urbanization changes the people living conditions and their way of eating are changed. In addition, the land for cultivation is reduced by high population concentrating in this area. Thus, the urbanization continues to increase while to

food production continues to remain constant and lead to food insecurity of those people who live in urban area. According to FAO, (2008:36), asserted that rural urbanization started since many years ago especially in developing countries. In their comparison of how urbanizing increase more than agriculture they asserted that the OECD group's urbanization increased at 147% while food production was at 72% (FAO, 2003:78).

2.1.4. Rural-urbanisation and Food Access

When it arises to the physical access to food, better infrastructure means that urbanisation is likely to have a positive impact on food security. In highly developed countries, in general, physical food access is not a concern. Persons who are incapable to access grocery shops may have the possibility of home delivery. In developing countries, on the other hand, access to food due to insufficient infrastructure can be a major issue. In most African countries, agricultural is mostly subsistence based (FAO, 2012; Sarpong, 2006), for a diversity of motives including the absence of tenure rights, insufficient infrastructure and lack of finance for agribusiness to generate more revenue. Urbanisation is generally likely to contribute to overall economic development and increase physical access to a diversity of foods.

In addition to physical food access, financial access plays a significant part in safeguarding food security. In this respect, residents of urban and peri-urban areas tend to be more underprivileged than their rural counterparts because most often they have to purchase their food, which makes them dependent on food markets and thus more exposed to probable price spikes. Research has shown that urban residents are likely to buy more than 90% of their food (Ruel & Garrett, 2003) and therefore food prices are a major factor of whether foodstuffs can be acquired. Residents of metropolitan areas such as Cairo, Lima or Maputo purchase between 92% and 98% of their food (Ruel & Garrett, 2003). For comparison, in rural Peru 58% of food is purchased, while in rural Mozambique the equivalent proportion is 29% (Ruel & Garrett, 2003). Although urban agriculture can complement the food of urban people, in many cases such an option is not available to the poorest urban communities. Often, the urban poor engage in informal exchange of services and commodities in return for food, which is likely to be of low quality

2.1.5. Rural-urbanisation and Food Utilization

Urbanization has positive and negative impact on food utilization. Those who are economically wealth can utilize well their food while the poor are challenged more when they in the cities. The reason of this statement is that the people who live in the cities they are mostly buy all of their consumption and they can face with food price fluctuation while they have no capacity to buy those foods. It the reason why the people who live in the city especially in developing countries are more likely to become vulnerable with food insecurity due to incapacity to buy those foods. The above challenges lead people to consume insufficient food, no sufficient water and also they cannot eat adequately in their daily (Popkin & Nielsen, 2003:67).

The report from Malik, Willett, & Hu, (2013) underlined that food utilization is different between developed countries and developing countries. This difference is due to food production system and also the people ability to produce, supply and consume their food production. Hence, rapid urbanization is a contributing factor of this situation because it affects the way in which food are produce, accessed and utilized. The urban poor in urban area tend used energetic food because it is only food that is accessible and available at lower cost.

2.1.5. Rural-urbanisation and Food Stability

Food stability is not suitable in the same way between developed countries and developing countries. The developed countries have the organized that can help it people to access all of their needs in good way while developing countries people face with the challenge of disorganization and food insecurity due to infective planning in their establishment where they can face with disasters, erosion and other natural environmental problems (IFRCRCS,2010). The main challenge that are harming food security today is conflicts that can result in was and other unpredicted events.

Many cities in Africa face with the challenge of food shortage prompted by lower countries economic development. It is the reason why most of food crisis that are existing in the world caused by rural urbanization and poverty. The first cause of this food insecurity is high price of food in poor countries' urban area. The second cause is environmental degradation where the farmer becomes unable to cultivate their plot of land. The high proliferation of rural urbanization

resulted in poverty and food insecurity. The market price is increased and this in turn affects food availability and accessibility (FAO, 2013:67). The UNICEP (2010:89) report indicated that the continual increase in urbanization will lead to high increase in food insecurity in urban area. As consequence, the main characteristics of food insecurity can be expected to be greater in urban than rural areas, but lessening so that countries become more developed.

2.2. Conceptualization of food security

The concept of food security has origin in Human rights principles. According to the Universal declaration of Human rights which stated that “everyone has the right to have adequate food, health, food and also rights to family”. It is also discussed by other international agreements as the fundamental needs to human being that everyone has rights to access. The definition of security started form World Food Summit 1996 in Rome by saying that food security exist when the population have access to adequate food in all the time and if they can make preference of the food that they need at all the time (Herforth 2010). In this way, every country has to improve food security in order to improve its people’s wellbeing by increasing its productivity level and help the people to get access on it (Kathiresan 2010).

According to Grott et al, (200:56) there are three columns of food security which are food accessibility, food availability and food utilization. Therefore, when the people have access on sufficient food it means that there is food availability. Indeed, it means that the food is available because they have access on it and this in turn improves food utilization. Contrary to the above statement, the people can be hungry while their food availability but their accessibility is limited due to their financial means. It is the reason why many people are food insecure while there is food availability. Apart from the above statement, there is a common problem in poor countries of food accessibility. Food utilization is also another concept that is related to their utilization in good conditions of nourishment and attention, as well as suitable water and hygiene.

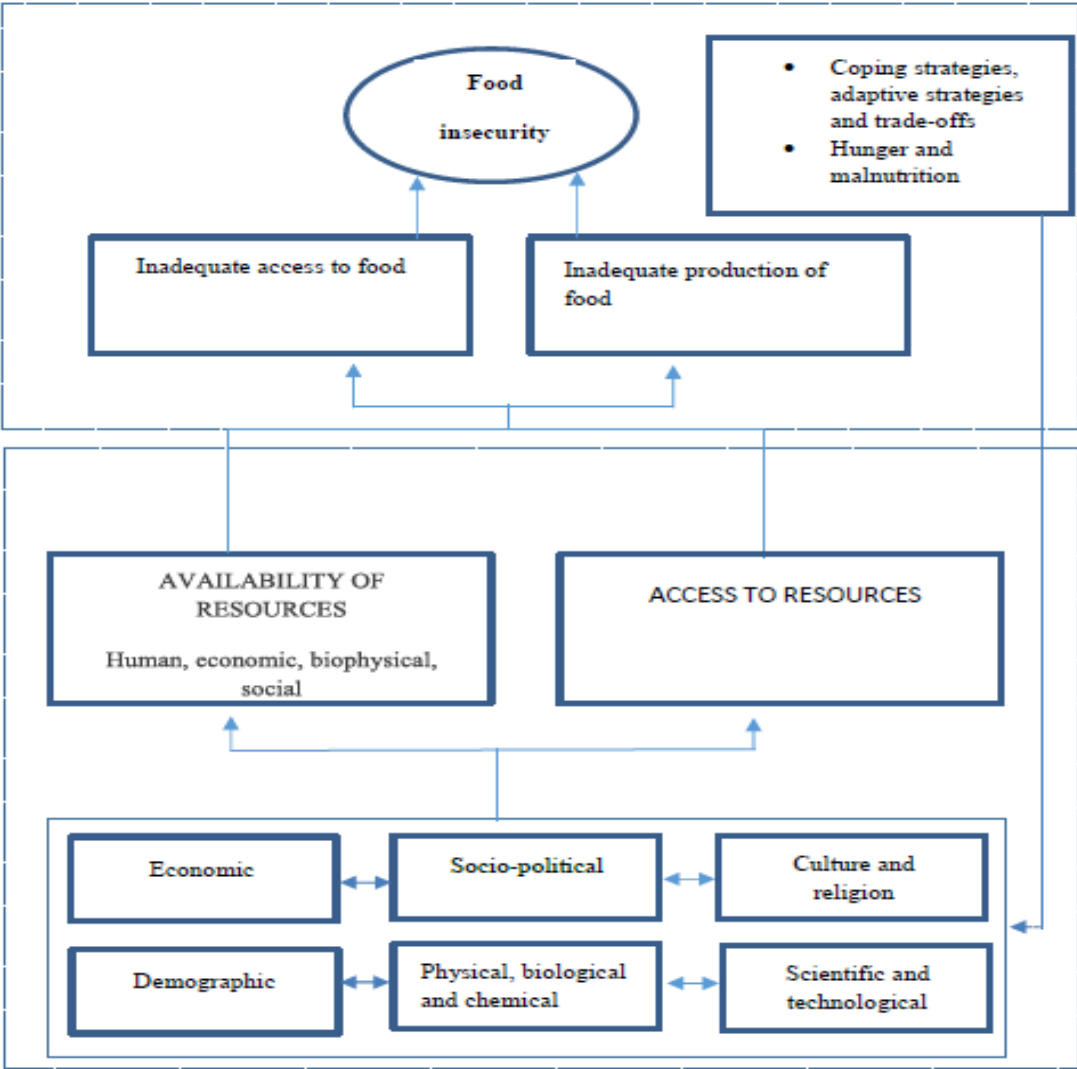


Figure 1: Theoretical framework of the process driving food insecurity and the outcome at household level (Misselhorn 2005: 35).

Pereira et al. (2014:33) underlined that food availability is not a significant to food security because the poor families are limited to access on it due to inability to pay for food. The same author underlined that many African Countries are affected by lack sufficient food. He set an example of South Africa saying that South Africa is affected by lack of adequate food to meet their needs. Therefore, the best solution to this challenges it that the people have to grow their own food and also in can help to tackle the global problem of food insecurity within poor families. Even the growth of own food can be effective, the remaining challenge is that there is a

shortage of land to cultivate and this in turn lead to inability to make choice (Labadarios et al. 2011:16).

According to Pereira et al. (2014: 341), food security continued to be a problem due to high cost of is accessibility and there is no hope that this problem will be addressed in sustainable way. Additionally, poor countries are most affected than rich countries because the expenses of poor countries are more expensed in public health rather than investing in improving food security. Therefore, all of the elements of food security are intervened and each of those elements can have an effect on another, this make the concept of food security to complex and require high improvement in establishing approaches to address this phenomenon.

2.2.1. Food security in global perspective

World countries tried to deal with the problem of food insecurity. Therefore, a big number of world populations continue to suffer from food insecurity. It is indicated that 805 million of people in the world are affected by food insecurity and 98% of those people are in their world countries. In order to deal with the above problem, the world countries tried to deal with the above issue and that why there is some achievement in addressing this problem. It is indicated that the number of hunger people was reduced up to 60% and it was reduced at 58% in developing countries (FAO 2015:65).

Even if there were establishment of different measure to address the problem of food insecurity but it is indicated that the issue of food insecurity is remaining issues that require international effort to address it. African countries are affected by food insecurity that other countries and it is indicated by FAO (2015:131). In addition, Asia is the most affected area in the world and accounts for more than two thirds of the world's hungry population and the effort to reduce hunger were not effective in these Asian countries (FAO 2015:12).

According to UN (2014) the policies that were established to reduce food insecurity to the year 2015 targets, was somehow effective but it was not reached to its full target of reducing food insecurity at 50%. It is indicated that some countries were not reach this target because among 63 countries which are established this agenda only 25 countries were achieved their goals but the

left did not attain their targeted goals. The most effective countries on this goal are in Latin America and the Caribbean as a whole where there was an increase in food security compared to other countries (UN, 2014:52).

World countries challenges reduce food insecurity are that it is difficult to provide every human being within their countries to have access on food and reduce food insecurity at all level. Many researcher including Sharafkhani et al. (2011: 31-34) said that there is a need to target 2050 goals that are aimed at reducing food insecurity in the world. Some of those strategies are to increase food production at the extent it can feed 8.5 billion of the world population but those targets require to set different measure that can counteract the problem of climate change.

The climate and environmental variation is the major agent of food insecurity in the world. This means that the strategies to reduce food insecurity in the world cannot be achieved without thinking about the climate change. It is imperative to world countries to think about climate change while they are addressing food insecurity. The reason of this statement is that climate change possesses a major impact of food price and increase food insecurity among people in the world. In turn, the rise of the cost of food possess the major threat to state stability in developing countries and sometimes forced people to migrate from their living are to other region where they can find for food (Pereira et al. 2014:40).

In order to improve food security in the world, it is important to think about other socio-economic matters that can go hand in hand with wellbeing on people. Those include helping people to access on social protection policies including health services, water, market place where they can get food and also to improve the people education level. Therefore, all development targets have to focus on the above actors (Pereira et al. 2014:39).

2.2.2. Food security in African perspective

African countries are facing with the challenge of poverty which has led to poverty among the population and hinder these countries to reach their economic targets. It is the reason why different policies of African countries failed to achieve their development goals of reducing the of food insecure people. The high rate of the affected people is living in Sub-Saharan African

with 214.1 millions of people who are affected by malnutrition between the year of 2012 and 2014. When we consider with the part of North Africa, it is observable that they have few people who are affected by hunger compared to sub-Saharan African. The report indicated that the north part of Africa has 5% of hungry people while it is 40% in sub-Saharan Africa and those who were most affected are poor people (UN 2015:23).

According to FAO (2014:339) indicated that the major causes of food insecurity African countries is poverty. The majority of people in Africa accessed on food from the market while they have not capacity to buy those foods. In addition, the people in Africa have not sufficient land to cultivate and this hinder them to produce more food to secure their household. Apart from that, there is insufficient of modern techniques to improve agricultural production where the modern technology is limited in African countries. The problem of climate change and lack of fertilizers is also another challenge to food security in Africa (Pereira et al. 2014: 339). Therefore, the food production in Africa remains low because of poor people and lack of plot of land that should be cultivated at higher level. This phenomenon goes hand in hand with other conditions that threatened the level of food productivity in Africa by. Disasters such as these shift priorities instantly, where resources are diverted to deal with the emergency instead of being used for development.

Indeed, the state of agriculture in African countries is not well structure due to political instability and inadequate policies that can help to improve food production. Thus, the African people inaccessibility to food is a major challenged to their living conditions and this affect them because they spend more in buying food rather than investing in other economic activities that can rift them form poverty (Pereira et al. 2014:39). Many report including the world bank Report (WB) (2006) indicated that many poor households in Africa are living in vulnerable life because of expending more in insufficient domestic production. Their state also spends more in importing food and this impoverished these state economy which in turn a major factor of dependence on foreign market by importing food rather than investing other economic activities like infrastructure, agriculture production and so on (Collier,2014:93).

Not only the above but also, there are also other reasons of food insecurity in Africa. The sources of this in poor health status of people because this continent have many people who are infected by disease like HIV/AIDS which is the main causes of food insecurity in Africa. There were different policies and programs to reduce this problem but the problem remains a burning issue that affect this continent. A big number of people in this continent are challenged where only sub-Saharan Africa counts 1.5 million of new infection while 24.7 million were living with this disease. The HVI/AIDS possess the need of improvement in and that why the state become incapable to reach this goals of providing food to all people in Africa. Finally, even though there were many strategies to reduce the incidence of HIV/AIDs, there is still a big task to reduce HIV which is turn lead to lead to food insecurity in Africa (FAO, 2011:65).

2.2.3. Food Security in Rwandan perspective

Although the scope of this work will be mostly limited to household food productivity, it is worth situating the latter into its bigger reality of household food security, referring to the situation in Rwanda. Rwanda still remnants a little revenue country with an estimated GDP per capita of US\$ 530 (World Bank report 2011). Although Rwanda's head-count poverty rate has reduced from 60.2 to 56.9 percent from 2001 to 2006, there are 600,000 more Rwandans existing in poverty than there were five years before 2007 (UNDP,2007). This leads to the assumption that poverty goes hand in hand with the crisis of food security.

Rwanda, like numerous countries in sub-Saharan Africa, is challenged by the problem of food insecurity and poverty particularly in rural areas (Valens et al. 2011). The 2006 Comprehensive Food Security and Vulnerability Assessment (CFSVA, NISR 2006) reports that, 28 percent of the populace was found insecure in 2006, with 24 percent ranked as extremely weak to food insecurity. Only 22 percent of the population was considered to be food secure. Large differences between different regions exist (Bugesera, Crete of Nile, lake Shore and Eastern Curve are the food economy areas most affected by food insecurity. The 2009 CFSVANS (NISR 2009) provided information on food consumption scores which are also indicators of food security. According to this 2009 survey, nationally, 4 percent of families were found to have a poor food consumption score (FCS), 17 percent have a doubtful FCS, and 78 percent have an acceptance

FCS. Considering the proportion of households with poor FCS from different areas, Bugesera district is where the part of families with a poor FCS continued relentless.

Food access also seems to be a problem in Rwanda. According to the 2006 CFSVA (NISR 2006), 38 percent of households have 'very weak access to food, 34 percent of homes have 'weak access, 23 percent have 'medium access, and only five percent have 'good access'6 to food. Food accessibility is particularly problematic in the Eastern Curve, Bugesera district, Southern plateau and lake shore areas, where over 45 percent of the homes were found to have weak access competences. In 2005 alone, more than 110.000 people, in this province, experienced serious food shortages (UNDP 2007). Historically, the Eastern savannah areas (Bugesera, Kibungo and Umutara) have known numerous famines. Currently these areas remain particularly vulnerable to food insecurity (Burnet, 2003:7).

Rwanda's agricultural sector has long been the main pillar of its economy, with 83 percent of the people still living directly off the land (Buruchara et al. 2002). However, the lack of big cultivable land due to land fragmentation in Rwanda is among the main reasons for limited capacity of household farmers to produce sufficient food, and consequently among the main causes of food insecurity (Mpyisi et al. 2004).

The 2009 CFSVANS (NISR,2009) shows that, countrywide 19 percent had less than 0.1 hectares, 37 percent less than 0.2 hectares, and 59 percent less than 0.5 hectares. Only 4 percent of the homes had access to 1 hectare or more. The proportion of homes accessing less than 0.1 hectares was the highest in Bugesera (37 percent), Huye (32 percent), Nyabihu (32 percent), and Musanze-Burera (29 percent). Thus, the CFSVA (NISR, 2006) showed that there is an important link between plot size and food insecurity. Farmers with less than 0.1 hectares 41 percent were food insecure related with 21 percent of those cultivating 0.5 hectares or more. As these are averages, it means that many farmers have less than 0.7 hectares, the generally accepted minimum size needed to feed the average household (Verwimp 2002), and 0.9 hectares which is the FAO's recommended size of an economically viable cultivation plot in Rwanda (Bruce 2009). One can argue that it is important for poverty reduction that people have enough access to land to be able to derive food from it.

The limited land accessibility and people weight have caused in both small plot sizes and cultivation of marginal land (hillsides), with subsequent erosion and loss of fertility or drought (NISR 2006). The 2009 study (NISR 2009) reveals that droughts, irregular rains and dry spells are the most frequently reported surprises skilled by farmers during the year before this study. This was mostly reported in the Eastern Province (especially in Bugesera district, 87 percent), in the Southern Province (Nyanza, 71.4 percent, Gisagara 60.4 percent, and Huye 58.7 percent), and in the Western Province (Rusizi-Nyamashoke (58.8 percent).

Rwanda Agricultural Development Authority (RADA, 2010) reports that agricultural productivity is hindered by, poor marshland and hillside irrigation, and crops destroyed by animals (baboons). Moreover, Valens et al. (2011) argue that land degradation and resulting deterioration in soil fertility have lowered the soil productivity. Despite the efforts in agricultural intensification (intensification technology package: mineral fertilizers, manure, improved seeds, liming, erosion control), soil productivity has deteriorated or remained stagnant. Compared with productivity of most crops in 1957, the average was lower in the period 2004-2008.

The 2006 NISR study reports that the produce harvested in agricultural season A lasts less than two months for 61 percent of households. Produce harvested in season B lasts a little longer: 52 percent of households revealed that it lasted for two months or less, while 43 percent said that theirs lasted for between three and six months. For season C, 83 percent of households said that their harvests lasted for two months or less. In terms of geographic distribution, the harvest produced lasted for the shortest time in Bugesera, Southern Plateau, and Eastern Curve. This means that household farmers face the problem of food insecurity, especially during March and April and in September and October. In addition, because of insufficient resources, the post-harvest and marketing activities are not sufficient (IFDC 2010). Thus Valens et al. (2011) argue that in Rwanda, the lack of food storage and food processing facilities pose greater risks to the availability of food. This leads to a situation where farmers often have to sell their products during harvesting times at low prices and then a few months later they have to buy more at higher prices, which is difficult because of their purchasing power.

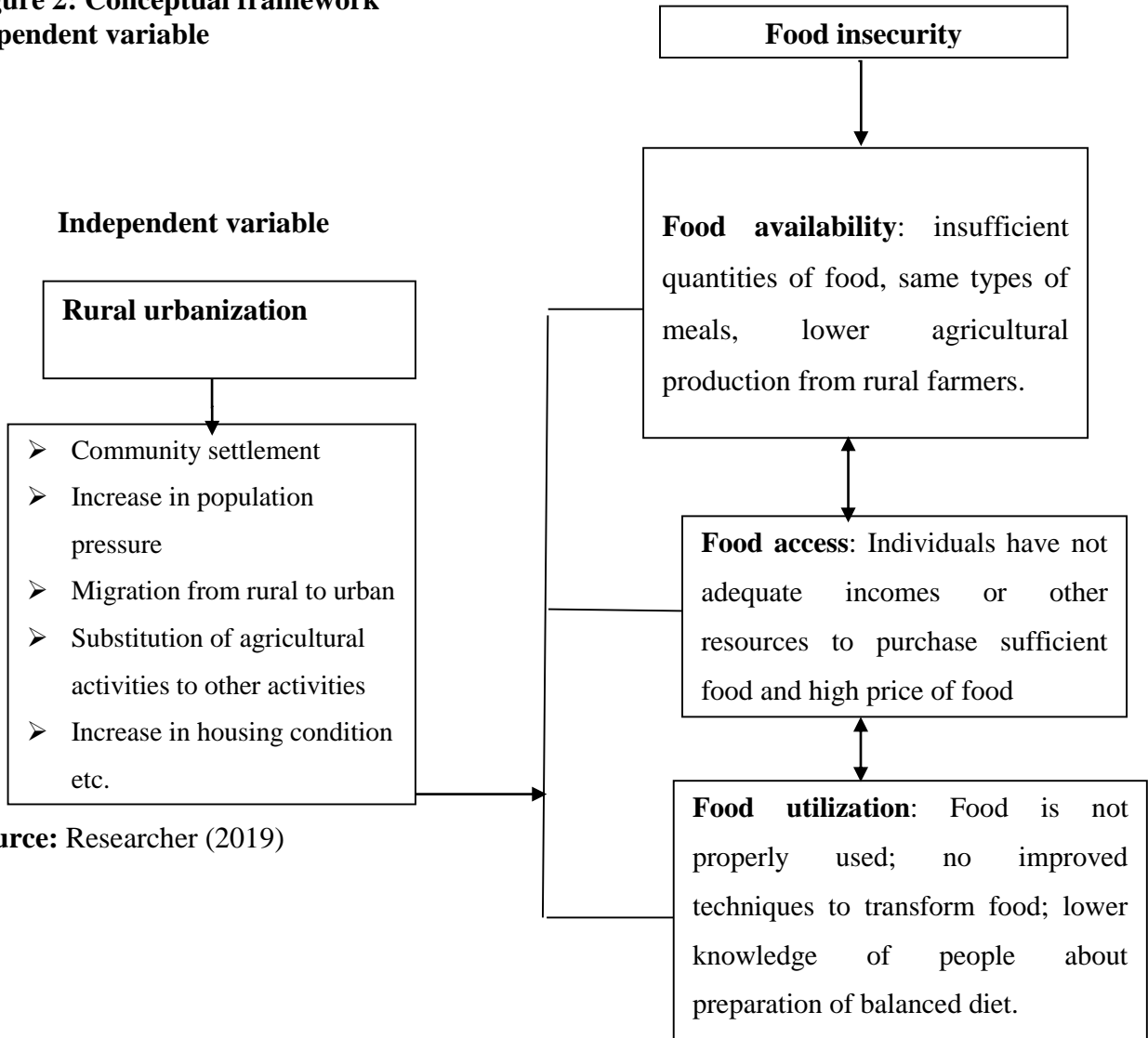
Furthermore, the National Agricultural Policy emphasizes the transformation of agriculture into a high value and high productivity sector to ensure food security (Engels et al. 2002). According to Herforth (2010), government support promotes regionalized production of crops, with the result that individual farmers produce fewer crops in favour of the one that the government supports in their region. Herforth (ibid) criticizes this policy by asserting that nutrition and the environment though essential for food security, are not at the core of this policy since its approach reflects a strategy to exploit agriculture as an engine of national economic growth and increase individual household income for farmers.

To sum up, food security phenomenon in Rwanda has deep connections with performance of agricultural sector and this implies that food security in Rwanda can be promoted through sustainable agricultural productivity since other sectors on the economy are weak. One may argue that, the trickle-down effect of the economic growth can address food insecurity and hunger in most areas.

2.3. Conceptual framework

Conceptual framework is very important in research because it proved the readers to understand the meaning of the concept in which a reproach is underlying on. In this research we were discussed about the concepts related to land rural urbanization and food insecurity with references to other researchers' views. Hence, we draw a scheme that provide the interaction between independent variable and dependent variables which are rural urbanization and food insecurity.

Figure 2: Conceptual framework
Dependent variable



Source: Researcher (2019)

The figure 2 indicates the relationship between rural urbanization and food insecurity. As it was discussed in the above statement, rural urbanization has a negative impact on food security. Basing on the above figure, rural urbanization manifested in high extension of Community settlement, Increase in population pressure, Migration from rural to urban, Substitution of agricultural activities to other activities affect people food availability, accessibility, utilization and stability. Therefore, rural urbanization is independent variable while food insecurity is dependent variable.

2.4. Theoretical framework

In human history, the people were characterized by food insecurity and many thinkers were explained this problem by using theories. This research used entitlement theory of Amartya Sen's (1980:9). Sen underlined that every human being is entitled to access on food, water, and other basic needs. The theory also lies on two elements which are personal endowments that people are deserved in accordance with the law like house, land, and domestic animal (Osmani 1995:89). The author explained that when the individual it meets with the failure to the endowments it will be affected by food insecurity and the reason why the people fall in hunger and starvation and that why there is hunger and food insecurity in different part of the world. This is due lower exchange of food production, inability to buy for food, external causes, and also individual inability to buy some food. The economic condition of the country can be an agent of entitlements because the economy helps the country to stabilize or harmonize the food price, improve social needs and ensure distribution of food in in good conditions by helping personal and group's food consumption is stable. In addition, trade entitlement help people exchange in goods and services that can help them in their daily life.

Basing on the above theory, some people are affected by rural urbanization in order to get and access on their basic needs like food and other necessities like houses, livestock and so on. The fact of this phenomenon it that their endowment is failed. The above theory is related to this research because many people in Bugesera District are effect buy food insecurity caused rural urbanization. This district is Bugesera District has many people from different area including those who come from Kigali City as its neighbour. The high concentration in this area prevents the people ability to have food purchasing power and reduce their daily food intake. In turn rural urbanization perpetrates food security in Bugesera District.

CHAPTER THREE: RESEARCH METHODOLOGY

3.0. Introduction

This chapter involves various methods, techniques and procedures of the data collection, processing as well as data analysis that used to collect, analyze, and interpret data which gives an overview of how the entire study was conducted to reach a final conclusion. It also discusses the case study, the population of study, sample size, and sampling the techniques that used during research study such as, documentations, questionnaires and interviews. The chapter cannot conclude without taking about various procedures for data analysis such as quantitative and qualitative analysis.

3.1. Description of study area

Bugesera district is situated in Eastern Province of Rwanda. The district of Bugesera is one of the seven districts constituting the East Province of Rwanda. The relief of Bugesera is a progression of platters on the heights subsidized and whose altitude varies between 1300 and 1667 meters. Bugesera is also characterised by a set of hills to the soft and middle slopes. The low platters that overhang some mounts: Juru mount, the more culminating of the district with 1667 meters, the mount Nemba with 1625 meters and the Maranyundo mount that have an altitude of 1614 meters (Republic of Rwanda 2006).

In consideration to other part of the country, Bugesera is a non-mountainous region characterised by a hot climate, the absence of rains and sometimes periods of non-severe droughts. It has two rainy seasons: short rains from October to November and long rains from mid-February to May. Bugesera district gets water resources from its lakes and rivers such as river Nyabarongo, and the lakes like Rweru, Cyohoha, Gashanga, Kidogo, Rumira, Mirayi, Kirimbi, and Gaharwa. Although Bugesera is blessed with significant water resources, famine has been frequent following poor production on crops of due to drought and insufficient water harvest and control (African Development Fund, ADF 2006).

The population of Bugesera district is about 274.113 people: 131.979 men and 142.134 women. Its economy is largely based on agriculture and more than 80 percent of the population lives on agricultural activities. The population of Bugesera largely faces the problem of the low

accessibility to lands. Approximately 30 percent of households are landless and another 40 percent owns less than a half-hectare. In Bugesera, Agriculture is mostly for subsistence with a moderately fertile soil. On average only 18 percent of households are producing for market. In the past, Bugesera region was the country's breadbasket where the major food crops were beans, sorghum and cassava among others. In 1994, the genocide had a devastating effect on the region; worsened further by the explosion number of single-parent families (38 percent of females and several young orphans now head families). During 1997-2006, the region registered a lot of climatic irregularities which went as far as lacking rains totally, the direct magnitudes of which have been food insecurity and massive population movements (ADF 2006, Republic of Rwanda 2006 and 2007).

3.2. Research Design

According to Grinnell et al (2000:138), a study design is the total plans we used to support in responding our research questions and see whether our objectives are achieved. According to Churchill (2002:108), a descriptive research is a study designed to depict the participants in an accurate way. This study adopted descriptive design to investigate on rural urbanization and food insecurity in Bugesera District. Qualitative approach was adopted to analyze data from with the interview that used as tool for data collection.

3.3. Population of the study

A population is "all persons on who is being investigated and family. It refers to the set of individuals to which a study is interested and having a common character (Deketele and Rogiers, 2002). The study population is 27436 people residing in Bugesera District while the target population is 2166 people who were selected during Monthly Umuganda program where the local government mobilized people about food security promotion, and local leaders who are working in Bugesera District (NISR, 2013). The above people were selected basing their Ubudehe category and were selected those from category one and two which are most affected by food in/security in Bugesera District.

3.4. Sample size

According to Bailey (2001), a sample size is a group of population selected from whom you collect the required information. However, the study of all population was not possible due to limited time and resources. The researcher selected a sample of 12 respondents to represent the whole population. In this sample, 9 local people who were selected are in category one and are among the most affected people by food in/security. Furthermore, the staff members who were selected are 1 respondent in charge of nutrition in Nyamata sector, 1 respondent in charge of agriculture in Nyamata sector and 1 respondent in charge of food and nutrition at the District. However, the researcher was used interview in order to they are useful to obtain detailed information about personal feelings, perceptions and opinions. They allow more detailed questions to be asked and they usually achieve a high response rate.

3.5. Sampling techniques

According to Ranjit Kumar (2005:165), a sample is a small group of population selected from whom you collect the required information.

3.5.1. Purposive Sampling

According to Deketele (2002) a purposive sample is a non-probability sample that is selected based on characteristics of a population and the objective of the study. Purposive sampling is also known as judgmental, selective, or subjective sampling. A purposeful sampling method was applied by choosing predefined groups of researcher conducted a study with purpose people will be selected to be interviewed. In this research, 12 respondent including 9 local people from category one of Ubudehe and experienced food in/security and 3 local leaders who are in charge of nutrition services and agriculture in Bugesera District.

Table 1: Participants' identification

Code	Year of birth	Gender	Marital status	Occupation	Education
P01	1983	M	Married	Leader	Secondary
P02	1987	M	Single	No Job	Primary
P03	1988	M	Single	Small business	Not educated
P04	1982	M	Married	Agriculture	Primary
P05	1974	M	Married	Business	University
P06	1975	F	Married	Leader	Primary
P07	1975	F	Widow	Agriculture	Primary
P08	1981	F	Married	Leader	University
P09	1982	M	Widow	Artisanal	Technical
P10	1981	M	Married	Business	Secondary
P11	1978	F	Separated	Small business	Primary
P12	1999	F	Single	No job	Primary

Source: Primary data, 2019

3.6. Sources of data

The tradition classifications of data for an empirical study like this used. Both primary and secondary data sources were used for data collection. Secondary data sources are the foundation for which the theoretical and conceptual framework of the research is built (Muchielli, 2006). Relevant literature from existing empirical studies and reports from the institutions, library, websites, Government of Rwanda (relevant ministries) were contacted for reports. On the other hand, primary data refers to the original data compiled and studies for specific purpose (Muchielli, 2006). The data collected from the field by issuing questionnaire and interview and requesting the respondents to fill them. This involves focusing on group sessions and primary document analysis and used to clarify, confirm or explain the results revealed by the secondary data or sources and any other relevant information that could not be disclosed by the existing records.

3.7. Data collection instruments

The tools that were used in data collection are questionnaire and interviews and documentation in order to reach final conclusion.

3.7.1: Semi-structured interview

An interview is a deep discussion about a subject under study (Gilbert Churchill, 2002). As interviews comprise different types that are structured and unstructured, in this research unstructured interview was conducted among some local authorities interviewed for further clarification of this research. In this research, we used semi-structured interview in order to find relevant information. Interviews are particularly important when the researcher is dealing with both literate. This technique was helpful to the researcher because there is accesses to primary data from the people who cannot are busy to provide information from questionnaires. During the interview the researcher develops more probing questions that help in getting detailed data. This technique was also used in order to save time and key informants in this research.

3.7.2. Documentation

This tool is used in collection of data that already exists in boxes in some organizations, documents, computers and library. It was used purposely in analysing the historical background, Newspapers, reports and internet. According to Kakooza (1992:14), documentation is defined as the available reading materials can be consulted to test the results that are from other methods. The researcher used the documentation in data collection to supplement the research under study.

3.8. Data analysis

This research adopted a thematic Analysis as a strategy to analyses data. According to Boyatzis (2008) thematic analysis is a process of encoding qualitative information. Thus the researcher develops phrases that serve as labels for sections of data and this helps researchers move their analysis from a broad reading of the data towards the discovering patterns and developing themes. The analytical analysis steps to be followed to develop themes in this study are performed according to Braun and Clarke (2006).Thematic analysis was done by explanation of data from interview by interpretation, discussion and comparing the views of interviewees that were conducted with parents, siblings and social workers.

3.9 Ethical Considerations

This relates to moral standards that the researcher should consider in all research methods in all stages of the research process (David, 2010). In our study, respondents were made aware of the ethical responsibilities. The participants in this study were communicated about the nature of the study and importance of the research and were in a position to decide whether to participate in the study. Participants were communicated that participation is intended and that they can withdraw from the study at any time without any significances. All participants were treated with respect and dignity and the information given continued secret throughout the study.

CHAPTER FOUR: RESULTS AND DISCUSSION

4.0. Introduction

The present chapter involves data presentation, analysis and discussion on the findings from research about rural-urbanization and food insecurity in Bugesera District. The chapter present the findings in relation to the research objective which were to find out the factors of rural urbanization in Bugesera District, to investigate on the on how rural urbanization affect food insecurity and to suggest the possible measures to enhance food security in Bugesera District.

4.1. Presentation and interpretation of findings by using thematic analysis

Before entering deeply in the content of this chapter, we judged better to analyze the data using the objectives of the study. The following themes were identified and discussed as follow.

4.1.1. Theme1. To find out the factors of rural urbanization in Bugesera District

Rural-urbanisation constitutes a challenge to food availability in terms of evolving consumption patterns and food production and supply processes. Rapid urban growth and an increasing number of megacities imply that more food will have to be available to people who live in an environment that has traditionally been perceived as inappropriate for agriculture.

Subtheme 1: Economic factors

Based on the social and physical attraction of urban housing, the ones from rural areas being attracted by such house in urban area. Thus, the developing rural areas and make their infrastructures as the ones from urban areas should be one among measures that should be taken to reduce food shortage in urban areas.

The interviewer named P01 confirmed that:

.....being in the job which is differed from what you have studied as well as being jobless are appeared in rural area and clearly this have a great contribution in low productivity, this may push us to leave this area in searching an improved living standard.....

By referring to the above interview given, the interviewer confirmed that people of Bugesera District leave this area which is considered as the countryside place to Kigali city so that they can improve their living standard. However, Bugesera district is near the of Kigali city; this makes the researcher to confirm that this problem is increased among the youth who enroll in Kigali city in order to search job. In contrast, based on the rapid development that Bugesera district attain today, there are many young people who came from their district even in Kigali city to settle in this district due to good living standard comparing where they come from.

By referring to these differences which should complete one another, the researcher confirms that in city of Bugesera district, there are many living place despite the ones who neglect to live there especially the ones who call it their motherland. Thus it is visible that many Rwandan people especially the young generation hate their motherland, this resulted to the forever or not living in the cities even they may be jobless. Additionally, due to the cities attachments such as infrastructures, many people choose to live in forever.

On another hand, P02 added that:

...peoples' ideology based on the attractive factors such as higher wage payment in the expected job, high level of job due to many people, enterprises and development....

For that, it is clear to confirm that many people move from countryside to the cities for living standard or improve their developing life. Clearly, being in Rwandan rural area there is a high risk of living due to low productivity, joblessness and lacking of food for many families. Additionally, rural urbanization is due to poor agricultural practice, unemployment and Bugesera District population development.

However, P03 confirms that:

...non-economic push factors made another intervention such as low level of urbanization. This means low level of education may be another push factor for the family. On another hand, if there is an improvement in agriculture from local to modern one, mechanization and improvement in infrastructure made the low level of job seeking in the agricultural sector and therefore this implies to the job creation among the people especially the youth.....

Furthermore, the above statement implies the government policy of transforming rural areas by increasing infrastructures among them should really be based transforming the areas where many youth move to cities and Bugesera District should come first and make it the second from Kigali because they close one another.

Thus, P04 said:

...on the factors that I may add, having a long time of sun shining and high level of rainfall which made flooding in remote areas due to low level of infrastructures made the famine among the people because both rainfall and sunshine destroy plants and makes people to live in unlimited famine ...

Based on the above statement, it is clear to confirm that in Bugesera District they meet the bad season which is sometimes characterized by high sun shine or drought and these results to the moving of the people from this district to Kigali city due to different ideologies shown in the above statement given. For the ones who have families, they migrant from rural area of Bugesera to Nyamata city; this make Nyamata city to overpopulate while the rural area of Bugesera has the low population. Consequently, these migrants search their living method in Nyamata city and this make this city to develop.

P08 highlighted that:

...the social factors such as infrastructures (schools, hospitals, roads and markets) may cause the rural urbanization because people move from rural areas to town in order to install in urban area due to such factors.....

Thus, this statement confirms that in Bugesera District, many people relocate from rural area to urban area due access social factors such as health care and other basic needs which are the main component of the human being's life. However, their city has all facilities, it is not necessary to move from this District to Kigali city.

Subtheme 2: Being jobless

The development of a given area is the manner of giving job opportunity to the different people especially, the ones who living in such area including Nyamata city of Bugesera District. In the

current work, many people involved and confirmed that job is not the only factor because still they have the opportunities of involving but agricultures and alike without regarding their education level.

During the interview, P02 said that:

...in countryside there is no opportunity, thus, it is not attractive to me to be employed there. I sometimes ask myself how much money that I can be paid in such village. In overcoming and replying this issue, I prefer to go to town in order to get Job opportunity because it is where life is possible. For me, I got many things due to being in town such as house and my displacement mean, I am sure that my family's living condition is better today....

Due to the above statement, the researcher confirms that the great numbers of new population in towns is based on the job opportunities. The possibility of development in village is based on small business such as selling food, banana beer and some vegetables which are very complicated to the business owners to develop themselves. This makes some people to leave village area. Apart from doing such business, there are also opportunities in the busy construction sector within the area as new houses are coming up in such area.

P04 added that:

...In our village, there is no problem of getting a job because apart from the ones who come from this village, we give jobs to the others who come from other Districts. Even 800 Rwandan francs per day is a minimum wage, in this village this money can buy enough food which can feed a family. For me, I create my own job opportunity because I buy some vegetables and fruits at low cost and I sold at real price, this job creation creates my living standard...

The above statement explains more that many people who comes from village to town, they are going to sell their commodities in town so that they can earn money and then after that, they return to village. On other hand, many of them chose to live there in order to keep their clients so that their business is improved. Clearly, many of them are youth

By referring to the interview given by the local area leader who confirms that:

...from now, the job opportunity among our people are available because our people are able to create their own jobs.....by referring to what they are doing in these days, some youth people of them aided the ones who are in construction work, shoe repair, sale of groceries, and other sell service such as selling unites...

By emphasizing on Bugesera District especially in Nyamata Sector, the he indication of the above statement confirms that nowadays, there is an increase in net income opportunities for the local people due to job creation. In increasing money in hand among the people who are in the village will be an opportunity of purchasing than the ones who are in towns who never get money. This has improved the sources of the income for the villagers in the face of reduced prices of agricultural produce. The high costs of living due to the influx of a new group of people have brought about competition for the locally available goods and services. Different job opportunity in village reduces the vulnerability and stresses among the people.

As in the interview given to said:

...based on the small place is appeared in town due to high level of population, the ones who live fall from towns they seems to live far from the country...

The current statement shows that being in town give the people the opportunity to of getting jobs and access the whole world due to internet and different infrastructure and high level of people they meet. These statement is done as a recall because it has been already explained in the below results presented where the researcher confirmed that educational curriculum should be based on job opportunity in area.

Additionally, Interviewee 08 supported the agronomist in Nyamata Sector idea by saying that:

....there is low level of education and longtime agriculture, there is no job opportunity...

Good employment opportunity based on agriculture make people. This probably can be explained by the experience most of the family members have had with nonpaid farm work especially in family rice plants.

The interviewee 12 added that:

...local and archaic farming strategy resulted to low productivity among the families; this makes the families to over dependent to the family members

The above speeches demonstrate that the increase in rural non-farm job opportunities and social awakening of the young men and women through interaction with new comers, have made them access honest income.

Subtheme 3: Transport and communications

In Bugesera District and wherever in the country, transport and communications means has a casual factor of rural urbanization. By seeing in Nyamata Sector, the look makes someone that there is a high improvement of social, transport and communications means based on roads, electricity, banks, health centers and schools that are adequate to people wellbeing and this attracted many people from rural area of Bugesera District and other region of the country to come to settle in this area.

The interview done P09 confirms that:

...There are the huge positive relationships between the town and countryside transport and communications means. Transport and communications work to link towns with the rural area especially in economic based on agricultural sector...

This shows that in Bugesera District transport and communications increase the profit of rural area people to the ones from town because they become able to sell their products in urban area of Nyamata District.

P07 confirmed that:

...the meaning of transport and communications is marketing creation between the ones from towns and the others from village; it is the easy means of selling method...

One among authority from Bugesera District added that:

...what the electricity and roads are the main wishes of the state in transport and communications because their role is visible in the country development. In Bugesera

District, roads show the transport means to other districts and Kigali in particular while communication shows the role in the development of the whole society...

By emphasizing Bugesera District vision of developing the village places to make them as the urban ones, the above statement is real and authentic. Transport and communication based on infrastructure like roads in different villages, electricity, improvement of settlement as a major tool for community development and improvement of rural-urbanization in Bugesera District.

However, P10 Said:

....On the employment issue, road is the one among the infrastructure that can enable rural commuters to access in rural area. That is to say, a more important role for infrastructure will be in enabling access to local urban centres which can provide employment to their surrounding rural areas. This form of movement remains a vital livelihood strategy for the poor who may be too poor to migrate over long distances. Furthermore, road infrastructure can enable local farmers to link up with food processing industries. Typically, these linkages can transform cropping patterns towards cash crops and emergence of new associated activities...

The transport and communication helps to move from one place to another of inputs and outputs, facilitate access to markets and strengthen the foundations of agriculture. Overall, infrastructural facilities such as roads enhance both economic development and foster stronger rural urbanization. By contrast, weak infrastructural facilities affect access to health and education facilities and hamper economic development and lead to weaker rural-urbanization.

4.1.2. Theme2: To investigate on how rural urbanization affects food insecurity in Bugesera District

The term of food security is appeared in every corner of human being. Normally, having people who are able to feed themselves is the dignity for them and for the country in general. Based on the ones who participated in this research, the issues based on food insecurity are shown. The following table indicate food security situation in Bugesera District.

Table 2: Situation of food security in Nyamata city

Description of household experiences	The main problem
No money for buying food	Food insecurity
Unable to feed themselves	
Children's malnutrition	
Missing food	Problem of accessing on the food
No expectation of food security	
No change in eating	Low quality and lack accessibility on food
Malnutrition	
Behaving as invaluable	No control of food insecurity
Losing self-motivation	
Having fear of being where others are	
Hopeless	

Source: Primary data, 2019

The survey done in Bugesera District about the shortage of food among P06 revealed that there is a huge difficulties due to food insecurity this was replied in the following words:

...Life is hard but we are alive! Sometimes we may take a whole day without eating. Even the ones who get something to eat; there it is not enough for him or her. Due to eat few, they never leave some food for giving his or her child at least. Our life is in high risk and there is no hope of leaving such situation...

Overall, basing on the above interveiw with one respondent residing in Bugesera District especially in Nyamata city indicate that rural urbanization has effect on food availability, accessibility and utilization.

Subtheme 1: Food availability in Nyamata city

However, many village family earning enough money but they are meeting the problem of shortage food on the market. However, the losing of value of money affect negatively the level of salaries, this caused the problem of purchasing power where the food should be available on the market but money hasn't value. Thus, many research about the hose surviving reviled that there is a great problem in food security.

According to P03, the situation of food household is:

...for me, I can counts the days that I can get something to eat per month. This situation is not mine only because there is no real source of money for us so that we can feed ourselves. For me, one day is very long but I have a dream that one day the sun will shine again...

Food insecurity in Nyamata city also manifested itself in anxiety and stress. During this research, the interviewee shows the worries about where they can find something to eat even once per day. Some people shows anger and losing hope because they consider themselves as the non-productive because their living cycle doesn't change.

It is in this situation, many respondents shows that there have no value because nothing their families and society in general. The situation of food shortage makes the family owners to leave it to town because they hate such situation.

The following statement of P08 explains how people feel on the concern of food shortage:

...For me, I sometimes think that moving from one place to another will make me to forget my family suffering. This makes me to wonder how this pain will be removed. Thus, as a father of a child, this suffering makes me to feel hapless before my daughter because when I rose at least one kilogram of cassava bread to feed her, nothing can explains her that I am really her parent and due to her age, I can't explain for her that there is no food due to shortage of money or jobless.. This situation is very hard to solve and it makes me to ask myself when God will end this painful situation...

The above statement of the one from Bugesera District who is living in Nyamata City shows that his report has no hope for tomorrow due to low level of feed himself. Such situation affects negatively the family members on physical and cognitive development. This situation makes the researcher to ask himself the reason behind the situation of shortage of money coupled by the shortage of feeding capacity. This situation is always questioned by the researcher because it is the one among the causes of low standard living situation. Consequently, these question will get solutions after showing the ideas from the respondents of Nyamata City who alive in such situation.

Subtheme 2: Urban Household Vulnerability to Food Insecurity

In this research, vulnerability is a condition where people is not able to get at least something to eat even one time per day, such people is sometimes homeless and jobless. Based on the area, in countryside areas, such vulnerabilities may be caused by social disasters such as high rainfall, high sunshine, etc. Thus, in the city, the vulnerability is more papered because some people who live in different cities are not able to participate in this development of the country. Thus, in case of Bugesera District, the climate change may be the other cause of being vulnerable; this resulted to the internal migration from rural area to town. In addition, the poor people in Nyamata city manifested a high degree of food insecurity and some of them tried to migrate from that city to other neighboring village where the life condition can be easy.

Table 3: Main causes of urban food vulnerability factors in Nyamata city

Main causes explained as the ones increase the vulnerability in town	Key category
Insufficient salaries	Joblessness and Poverty
Being under employed and missing something to do as daily job	
High level of feeding cost	Insufficient purchasing power
High price for the food comes from abroad	
Unfixed price for the commodity	
Much money for the transport, communication and social facilities	Money and its usage
Low level of food on the city market	Low market access
High price for allowance condition	
Ever moving from one place to another/ People instability	No housing and insecure tenure
Ignorance about the law	
Overpopulation results to low living place	Low level of accessing the place
Insufficient land for building	
High level of Inflation	Inflation
Living by buying all things	
High level of money expense	Poor food distribution networks and infrastructure
Insufficient food on the market	
Harassment by local leaders	Political and governance factors
Being beaten	
Loss of the family head	Low level of living capacity
Death	
Heading families	High level of family size
Low education level, large number of family members, joblessness, widowhood	

Source: Prime data, 2019

The extent of family's food shortage in Bugesera District was not only indicated by the big number of families that are affected but hunger but also by the quantity of those food that they consume. A big number of participant during interveiw guide underlined that they do not change their quality and quantity of food for long period. Means that they can eat one kind of food for long period because of food shortage.

Subtheme 2: Food accessibility in Nyamata city

For the household which have a big number of families' members, their challenges are doubled compared to those who have the few members, during the interview with respondents they explained how they managed to survive during their daily life as follow.

P01. He explained:

...It is too difficult to forget the living condition that was here when we come in Nyamata city at the first time...My husband was drunkard and not used to support his family for anything but I tried myself by practicing cultivation of different crops which helped me to care for my children and my family. I continued to cultivate and this brought me more income to rise my children without any support for my husband... due to weather condition I can face with food shortage but it is not all the time...

The above statement indicates that some people in Bugesera District tried to cultivate their small plot of land in order to found for food and this practice is in line with Bugesera District target which sensitize local people to have kitchen garden in order to improve food accessibility especially vegetables within their households. The people living in Nyamata city tried to cultivate the types of food that can help to complement those which they can buy at the market. It was remark that there are many kitchen gardens that were built by the residents in Nyamata city in order to cultivate vegetables which are very costly in Bugesera District during the dry season.

According to Executive Secretary of Nyamata Sector:

... The big number of people who live here used to cultivate different types of food and this help them to afford for food without difficult means. Even this area is dominated by heavy sunshine; we have educated some people how to practice irrigation especially in marshland. The people are well understanding how the can also practice agroforestry in order to protect their environment. There is a still to educate them how they can practice their agriculture but respect the master plan of Bugesera District as an urban area...

The majority of domestic in Bugesera district participate in farming activities as it was indicated by the statements of respondents. This helped the people to have access on food at a certain period without buying it at the market. The remaining challenge is that some people have not access to land and that why they still with starvation compared to those who have their plot of land to cultivate. The only way they use in order to find a minimum food is to cultivate on kitchen but this cannot provide sufficient food for the family.

The respondents said that the way to survive is to work hard or to starve. The people who have regular employment are also participating in other activities when they come from their jobs. This helps them to obtain their accumulation food to eat.

P010 mentioned:

...in my daily life I do not have time to rest and that why I work day and night in order to remunerate more for my survival and buy for food. I used to manage that situation because I cannot do anything rather than working day and night...

The above statement was supported by P04 who said that:

..... The only way to live in urban area Is to work hard. The causes of this hard work are to afford family basic needs like food and rent for their hose. Those who work lower salaries jobs are also involving in extra time work....

Futhermore, the interviewee said that they used to visit their family members in rural area for a short period of time in order to cultivate the corps that they will feed. The reason behind of that they want to cultivate food their survival.

P09 underlined that:

...most of time I used to buy seeds and manure for going in rural area to cultivate and I back here at the city after cultivation, this is done especially during the rainy season. After that I go there to harvest and it is helpful to me because it help me find enough food for my family...

The agriculture sector in Rwanda is dominated by cultivation of different crops but the dominated is maize. It is the reason why many household cultivate maize especially in rural area in order to find for enough production. Therefore, maize floor become the main food in a big number of people in Bugesera District:

During the interview with respondent P09:

...I usually go to rural area to bring some maize to eat and when I know that there is a person from there who will come here he can bring me the maize for eating. Maize floor become the principal meal in Bugesera District...

Generally, the people living in Nyamata city are the same of other region in the country where the share different items of food especially the cereals from rural area to urban area. The above statement is not totally different with other authors view because O'Connor (1991) argued that and this can increase the people's standard of living.

A respondent during the interveiw P06 said:

...As in town there is no place of cultivating, there is a great role of food from village because what we eat in town comes from village....

This shows that that majority of interviewees tried to cultivate their plan of land in their coming village in order to survive in the city. On another hand, have their own house in the city live in good condition because they do not expend more in buying the food for eating and they sometimes access on food at easy conditions. In addition, they sometimes have the plot of land to cultivate which in turn lead to their high production of food.

4.1.3. Theme3: To suggest the possible measures to enhance both adequate rural urbanization and food insecurity in Bugesera District

In Bugesera District, it is clear that missing the living standard based on food is an issue and there is a need to address the above challenge. However, strategies to overcome the challenges in Bugesera District are indicating as follow:

Subtheme 1: Practice of modern agriculture

In order to cope with food insecurity in Bugesera district, the people have to adopt different strategies that can help them to cope with food shortage; some of those are improvement of agricultural methods which can go hand in hand with livestock modernization. With respect to income, households with higher incomes had more chances of finding more activities that they could take part in. This is because they could invest some of their income in income generating projects and still have some money to survive on. On another level, some household had not able to afford their basic food. During this research, we have been requested respondents about the strategies to cope with food insecurity and the following are respondents' statements about this point.

In the interview given to P05, the interviewee started that:

...Due to insufficient materials used in cultivation the farming of rural areas never get the high productivity. However, increase in mechanization will increase the productivity, his result to the high level of outputs. The usage of such method will result positively and influence on the rural traditional because they can embark on large scale plantation or agribusiness in terms of commercial activities to rise harvest and output and their revenue. This will make agricultural to both adult and youth in the rural area good-looking hence limiting their desire to get to the urban centre for other engagement occasions....

As noted, in Bugesera District in partnership other supporters have to help local people who residing in rural area to practice modern agriculture. This will improve local people wellbeing and sometimes become able to supply diversified food to the people who live in Nyamata City. Not only the above but also, the young people in Bugesera District will be motivated to involve in agriculture rather than migrating in Nyamata City.

The interviewee named PO3 added that:

... The residents of Nyamata city are mostly young and sometimes are job seekers. There is a need to mobilize people about the practice of agriculture in a way to improve country's economy. The young people should be given chance to access on land and fertilizers in order to improve their production towards food security...

Basing on the above statement, this will be a source or motivation to establish themselves in the rural area and thus no incentive to move. Basing on Bugesera District as our case study, the main targeted people should be youth. The reason of this is that the youth compose a big number of populations in Bugesera District. The young people should be trained about entrepreneurship skills especially in agricultural sector by facilitating them to access on mechanized tools, selected seeds and those who were started should be facilitate to find market of their products.

Subtheme 2: Promoting irrigation for small farmers

Wetness is very important to agricultural production in Bugesera District, the failure to use it will lead to high reduction of food and they can lead to famine and hunger among local people of Bugesera district. The provision of sufficient food and water should be the best way to improve food security in Bugesera district and this will lead to maximization of food in this area.

PO1 said confirmed that:

...low seeds which can give the higher productivity should be the best strategy to improve food security in this District, intended to accumulative productions per unit of rain and per unit of irrigation water...

This implies that the people in Bugesera district should be trained about irrigation mechanism and how they can adopt agricultural seasons in good way because this can help them to improve their production. Futhermore, the rural farmers' cooperatives should be effective in order to facilitate them the access on irrigation machines as well better practice of mechanized agriculture.

During this research another interviewee P02 said:

... methods to improve irrigation should be available "green water" productivity include various techniques to increase effective rainwater storage as well as the progress of crop diversities with better drought confrontation features and a more favorable water conversion rate. Rainwater harvesting can help further to secure water supply at serious stages of growth, reestablishing the feasibility of indigenous cultivation performs...

The above implies that irrigation is a significant choice for safeguarding a more secure water supply for agricultural manufacture. In Bugesera district, crop production should largely dependent on irrigation by enabling a big area already to be equipped for irrigation. This in turn should lead rural farmers to produce adequate production to people. Indeed, improving the quality of the prevailing method of irrigation should be good and improve food opportunity in Bugesera District can be raised substantially if farmers receive active motivations and support services.

An interview with a respondent P07 said:

...Small farmer irrigation has demonstrated the most active form of irrigation growth, straight profiting the resource-poor farmers. The introduction of low-cost irrigation machineries, such as the control pump, simple well-drilling systems and cheap cost drop systems for vegetable and fruit-tree production, can raise farm profits dramatically and have demonstrated highly cost-effective...

Based on the current place, except there are consistent permanent water sources that allow the growth of small-scale irrigation, developed land management is possible to be the most feasible activity. This would contain the advertising of drought-tolerant crops and pastures, agro-forestry, soil and water upkeep and water collecting systems, minimum or zero digging intended to improving soil moisture holding and increasing labor productivity, other measures aimed at raising soil organic matter levels and manual and mechanical forms of land reclamation. Programs would be formulated to protect agriculture promotion, which would be mainly relevant for this environment

Subtheme 3: Addressing urban food insecurity

By referring to the ones who are in bad condition due to missing something to eat, this situation is papered everywhere especially in the urban area, Here, the constraint is not so much convenience as access to rights on money that can help someone to feed himself and reduced ability to acquire nutrients through low level of standard living.

P08 replied that:

...cultivating in urban areas should remove the problem of food which is in urban areas. It offers profits by allowing urban farmers to produce fresh supplies of perishable foods to a huge nearby market. It also gives such farmers, many of whom are women, an opportunity to improve their families' diets directly by growing nutrient-rich fresh foods...

In order to increase productivity based on the seeds, there are some basic needs such as seeds, technicians and fertilizers as well as the modern water conservation method.

An interview with a respondent P09 said:

...based on the infrastructure needed, water supply has the role of improving the people's hygiene. In addition, wood for fuel, using other power should be better. However, what is needed so that this should be achieved is the easy means of transport and communication. On another hand, this will be achieved if Government invest in construction of infrastructures such as roads in rural areas, this will make communication easy and people being able to transport food from rural area to urban area and this results to the reduction of food security problem...

Thus, in Bugesera district the different partners involved in dealing with the issue of poverty and hunger by providing different support in order to increase people wealth and food security in general . In addition, there is a still enough to achieve in order tackle poverty. It is very important to local leaders in order to address the problem of food insecurity in Bugesera District.

CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

5.1. Conclusion

This research was about rural urbanization and food in/security, a case study of Bugesera District. The general objective was to determine how rural-urbanization affects food in/security, Case study of Bugesera District while the specific objectives were to find out the factors of rural urbanization in Bugesera District, to investigate on how rural urbanization affects food in/security in Bugesera District and to suggest the possible measures to enhance both adequate rural urbanization and food in/security in Bugesera District. This study adopted descriptive design to investigate on rural urbanization and food insecurity in Bugesera District. Qualitative approach was adopted to analyze data from with the interview that used as tool for data collection. The purposive sampling was adapted to select 12 respondents. Data collection tools were interview while the collected data was analyzed by using thematic analysis. About the main factors of rural urbanization in Bugesera District.

The findings indicated that the major factor of rural urbanization is economic factors. The respondents underlined that being in the job which is differed from what you have studied as well as being jobless are appeared in rural area and clearly this have a great contribution in low productivity, this may push us to leave this area in searching an improved living standard. Secondary, the development of a given area is the manner of giving job opportunity to the different people especially, the ones who living in such area including Nyamata city of Bugesera District. In the current work, many people involved and confirmed that job is not the only factor because still they have the opportunities of involving but agricultures and alike without regarding their education level. Third, in Bugesera District and wherever in the country, transport and communications means has a casual factor of rural urbanization. By seeing in Nyamata Sector, the look makes someone that there is a high improvement of social, transport and communications means based on roads, electricity, banks, health centers and schools that are adequate to people wellbeing and this attracted many people from rural area of Bugesera District and other region of the country to come to settle in this area.

About the effect of rural urbanization on food insecurity in Bugesera District. The finding of research indicated the situation of food security Bugesera District bad. Many village family earning enough money but they are meeting the problem of shortage food on the market. However, the losing of value of money affect negatively the level of salaries, this caused the problem of purchasing power where the food should be available on the market but money hasn't value. Thus, many research about the hose surviving reviled that there is a great problem in food security. In Bugesera District, the climate change may be the other cause of being vulnerable; this resulted to the internal migration from rural area to town. In addition, the poor people in Nyamata city manifested a high degree of food insecurity and some of them tried to migrate from that city to other neighboring village where the life condition can be easy. Indeed, food accessibility in Bugesera District is low and the respondents proved that people in Bugesera District tried to cultivate their small plot of land in order to found for food.

Regarding the possible measures to enhance both adequate rural urbanization and food insecurity in Bugesera District. The respondents proved that the best measure is to Practice of modern agriculture. Bugesera District in partnership other supporters has to help local people who residing in rural area to practice modern agriculture. This will improve local people wellbeing and sometimes become able to supply diversified food to the people who live in Nyamata City. Not only the above but also, the young people in Bugesera District will be motivated to involve in agriculture rather than migrating in Nyamata City. Promoting irrigation for small farmers was also another strategy that was suggested in order to improve food security. The respondents agreed that the people Bugesera district should be trained about irrigation mechanism and how they can adopt agricultural seasons in good way because this can help them to improve their production. Futhermore, the rural farmers' cooperatives should be effective in order to facilitate them the access on irrigation machines as well better practice of mechanized agriculture.

5.2. Recommendations

Firstly, the present research indicated the major factors of food insecurity in urban area. These factors are poverty due to income inequality and shortage of jobs. In addition, the people in Bugesera District claimed that they have not adequate housing and this affected the food security because they paid lent difficultly. It is important to government of Rwanda to solve the issue of food insecurity in urban area by helping people especially youth and women to have access on

job creativities ‘opportunities, Bugesera District in collaboration with other development partners have to make people have access on cheaper household for rent and this will reduce the expenses in accommodation while that money should be used for other basic needs.

Second, a small number of respondents told revealed their source of food is their engagement in agriculture by producing vegetables and other food for the households’ consumption. The Bugesera District authority have to recognize the significant importance of urban agriculture by supporting it people to practice modern agriculture, provision of agricultural support that can help in extension of agriculture as well financial service facilities that can help them to improve their productivity. Futhermore, there is a need to help local people who resides in rural area to practice modern agriculture. This will improve local people wellbeing and sometimes become able to supply diversified food to the people who live in Nyamata City. Not only the above but also, the young people in Bugesera District will be motivated to involve in agriculture rather than migrating in Nyamata City.

Thirdly, water inaccessibility in Nyamata city was observed as a problem to food security. The people travel long distance from their home to waters source. It is imperative to government of Rwanda and stakeholders to provide basic infrastructure which are needed.

Fourth, Bugesera district is likely to have a heavy dry season that threatened food insecurity. The above implies that irrigation is an imperative option for safeguarding a more secure water supply for agricultural manufacture. In Bugesera district, crop production should largely dependent on irrigation by enabling a big area already to be equipped for irrigation. This in turn should lead rural farmers to produce adequate production to people. Indeed, raising presentation of current irrigation systems will, consequently, be an importance exploit in any food security approach. Yield levels in prevailing irrigation can be raised considerably if farmers receive real motivations and support services.

Lastly, the problem of food insecurity is recognized in work countries not only in Rwanda. There is a need to establish the international mechanisms that are aimed to improve food security at international level through research and programs to reduce food insecurity.

5.3. Areas for Further Research

This research provides many area of research where other researchers go further to investigate on the issue of food insecurity.

Once, there is a need of deep analysis to know the situation of Nyamata city in terms of food insecurity in at national level.

Twice, other researcher have to investigate on the mechanism that urban poor can adapt to cope with food insecurity by providing policies that can help in improving people's welfare.

This thesis has focused rural-urbanization and food in/security in Bugesera District. The outcome might not be directly generalizable to other area of Rwanda, but the poorest homes in urban area in Rwanda several of the same challenges as those in Nyamata City. As an outcome, the thesis helps to highlight the significant policies that such families might be probable to adopt. To that extent, the thesis will positively also is a modest support to the new dissertation on urban food security in Rwanda and Africa in general.

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APPENDICES

Appendix 1: Interview guide with local people residing in Bugesera District

My name is MUHIZI San Antonio. I am studying Masters in Security Studies at University of Rwanda. I am carrying out a research on rural urbanization and food insecurity in Bugesera District. You were selected in order to respond my questions and your information will be used for the purpose of research only. Feel free to respond my question and I confirm that your information will be treated confidentially.

Questions

a) What are the factors of rural urbanization in Bugesera District?

.....
.....

b) How does rural urbanization affect food in/security in Bugesera District?

.....
.....

c) What are the possible measures to enhance both adequate rural urbanization and food in/security in Bugesera District?

.....
.....

Thank you for your participation. Do you have anything that you may wish to ask, add, explain or retract?

Appendix 2: Key Informant Interview Schedule for Local Authorities

Dear Participant:

My name is MUHIZI San Antonio. I am studying Masters in Security Studies at University of Rwanda. I am carrying out a research on rural urbanization and food insecurity in Bugesera District. You were selected in order to respond my questions and your information will be used for the purpose of research only. Feel free to respond my question and I confirm that your information will be treated confidentially.

Questions

a. What are the factors of rural urbanization in Bugesera District?

.....
.....

b. How does rural urbanization affect food in/security in Bugesera District?

.....
.....

c. What are the possible measures to enhance adequate rural urbanization and food in/security in Bugesera District?

Thank you for your participation. Do you have anything that you may wish to ask, add, explain or retract?