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PERSISTENT FOOD INSECURITY IN KENYA: EXAMINING THE
POTENTIAL CHALLENGE OF HORIZONTAL PUBLIC POLICY
INEQUALITIES (HPPIs)

ABSTRACT

Food insecurity is a persistent challenge in the developing world, particularly the Sub-Saharan African region. Based on the latest report on the state of the World Food Insecurity, an estimate of 28% of the population in the Sub-Saharan Africa is recorded to be malnourished. This enduring challenge, therefore, requires further studies to shed light on the underlying causes of the problem and find a sustainable solution. Previous studies situate causes of food insecurity around four broad theoretical approaches :(1) food availability decline (FAD), (2) entitlement to food failure, (3) utilization failure and (4) politics and power dynamic approach. This thesis adds its contribution to the last approach which has been attracting academic interests in recent days. Using a case study design, this thesis, therefore, examines why Kenya experiences persistent food insecurity despite the abundance of resources and opportunities for international development aid. The thesis argues that the persistent food insecurity in Kenya is due to horizontal public policy inequalities (HPPIs), which defines resource distribution across ethno-regional territories in Kenya, leading to regional disparities in access to vital public good necessary for realizing food security.

KEYWORDS: Food insecurity, Horizontal Inequalities (HIs), Horizontal Public Policy Inequalities (HPPIs)

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LIST OF ABBREVIATIONS

BMI	BODY MAS INDEX (BMI)
CDF	CONSTITUENCY DEVELOPMENT FUND
DFRD	DISTRICT FOCUS FOR RURAL DEVELOPMENT
EUI	ECONOMIST INTELLIGENCE UNIT
FAO	FOOD AND AGRICULTURAL ORGANIZATION
FAD	FOOD AVAILABILITY DECLINE
FPE	FREE PRIMARY EDUCATION
GFS	GLOBAL FOOD SUMMIT
HIs	HORIZONTAL INEQUALITIES
HPPI	HORIZONTAL PUBLIC POLICY INEQUALITIES
ILO	INTERNATIONAL LABOR ORGANISATIONS
KADU	KENYA AFRICAN DEMOCRATIC UNION
KANU	KENYA AFRICAN NATIONAL UNION
KDHS	KENYA DEMOGRAPHIC HEALTH SERVICE
KMRI	KENYA MEDICAL RESEARCH INSTITUTE
KNFNP	KENYA NATIONAL FOOD AND NUTRITION POLICY
KNBS	KENYA NATIONAL BUREAU OF STATISTICS
KPU	KENYA PEOPLE UNION
LDC	LESS DEVELOPED COUNTRIES
LVC	LA VIA CAMPESINA
MDGs	MILLENIUM DEVELOPMENT GOALS
MNCs	MULTINATIONAL CORPORATIONS
NACC	NATIONAL AIDS CONTROL COUNCIL
NCPD	NATIONAL COUNCIL FOR POPULATION AND DEVELOPMENT
SAPs	STRUCTURAL ADJUSTMENT POLICIES
SDGs	SUSTAINABLE DEVELOPMENT GOALS
SOFI	SATE OF FOOD INSECURITY
UDHR	UNIVERSAL DECLARATIONS OF HUMAN RIGHT
UNDP	UNITED NATIONS DEVELOPMENT PROGRAMME
USAID	UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT
WFS	WORLD FOOD SUMMIT

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PERSISTENT FOOD INSECURITY IN KENYA: EXAMINING THE POTENTIAL CHALLENGE OF HORIZONTAL PUBLIC POLICY INEQUALITIES (HPPIs)

INTRODUCTION

The aim of this thesis is to examine the persistent food insecurity in Kenya despite the abundance of resources and opportunities for international development aid. The issue of food insecurity is not a new phenomenon; rather it is an issue as old as humanity itself. What makes it interesting in the modern days, however, is the politicization of food security in which its attainment has become one of the top political priorities both at the national and the global level (Pinstrup-Andersen, 2009:5). The eradication of hunger and achievement of sustainable food security has been one of the top global development agendas for decades since the 1974 World Food Conference in Rome. It was the number one goal in the Millennium Development Goals (MDGs) that ended in 2015 and second in the ongoing 2030 Agenda for Sustainable Development Goals (SDGs) (Griggs et al, 2013).

The scientific and policy interests of food insecurity were revitalized further by the 2007-2008 global food crisis that triggered social and political instabilities around the world. This global food crisis caused a record high level of hunger and starvation around the world with the greatest effect on the global South countries. There was a paradox in the occurrence of this particular global food crisis because it occurred at a time of record-high output of global agricultural production as well record profit for corporate agrifood companies (Holt Giménez & Shattuck, 2011:111). Politically, the crisis prompted food system (re)localization in many parts of the developing world, particularly in the Latin America region. Governments started to intervene food production, distribution and consumption (food safety and quality) with an intent of counterpointing the corporate-driven global food system and subsequently achieve national food self-sufficiency (Allen & Wilson, 2008:536).

While food insecurity is a global challenge, its threat is, however, greater in the developing world than industrialized nations. The Sub-Saharan Africa and South Asia countries are mainly the most food insecure regions in the world. Based on the latest report on the state of world food insecurity report, an estimate of 35% in South

Asia and 28% in the Sub-Saharan Africa is recorded to be undernourished. These numbers were even higher than that of 1990-1992 which was estimated at 29% and 17% respectively. It implies that the progress made in these regions concerning efforts to overcome food insecurity was very slow for past two decades. Even though the food security conditions look bleak in these two regions, significant progress has, however, been made globally in reducing food insecurity. In the last decades, the undernourished population globally reduced by over 962 million people (SOFI, 2015:10).

Furthermore, until now it was possible to identify the number of people experiencing food insecurity globally and where they geographically live. It has been, however, difficult for academics to offer a concrete explanation to the question “why” are some people and regions more food insecure than others. While this issue has been discussed for decades yet, no single overarching explanation is available. The potential reason for this lack of consensus is due to the complexity of what define the concept of food insecurity. Some of the explanations suggested in the current literature include the decline of food production, poverty (Chen & Ravallion, 2008), population growth (Godfray et al, 2010), disproportionate macroeconomic and trade policies (Maxwell, 1999), political and social instabilities (Lagi et al, 2011), poor governance (Sahley et al, 2005), and food aid dependence (Devereux & Sussex, 2000).

In this thesis, these literature are grouped into four broad theoretical approaches: (1) Food availability decline (inadequate food supply) (Bowbrick, 1986), (2) Food entitlement failure (demand failure) (Sen, 1981), and (3) Food utilization failure (food safety & nutrition problem) (Maxwell, 1996) and (4) politics and power dynamics approach (Schanbacher,2010).While the first three approaches are traditionally the determining factors for food insecurity, in recent days, however, there has been burgeoning interests on the politics and power dynamics of food insecurity. Unlike, the other approaches that solely focus on a single factor (availability, accessibility, and utilization), the politics and power dynamic approach of food insecurity tend to adopt a more holistic approach. In other words,

political and power relations determine factors affecting the three central pillars of security: food availability, accessibility, and food utilization.

This thesis, therefore, tries to contribute broadly to this literature, but specifically on the impact of horizontal public policy inequalities (HPPIs) on food insecurity. The nexus of HPPIs and food insecurity seem to be under-examined in the current literature of food insecurity. HPPIs concerns about, how inequitable distribution of resources between “groups,” defined by their social identities such as race and ethnicity determine the food security status of groups (Stewart, 2009:316). In general sense, we need to be concerned with HPPIs both on an instrumental and normative ground. Instrumental, implying that uneven distributions of public resources can be a threat to the realization of important development goals such as economic growth, human development, poverty reduction, social and political stability. Ethically, in the sense that HPPIs is incompatible with just and democratic society (Stewart, 2016:61).

It is widely agreed that these factors are an impediment to global and national struggle for achieving food security. Considering the limited scope of the paper, this thesis restricts itself to the instrumental effects of HPPIs and their relations to persistent food insecurity in many Sub-Saharan African countries. Utilizing Kenya as a case study, the thesis focus on the impact of ethno-regional public policy inequality and persistent food insecurity in Kenya. As a consequence of sustained political power inequality between ethnically defined regions in Kenya, inequitable distribution and redistribution of resources across regions have been a great challenge. The unequal distribution of public resource not only is it a threat to economic and human development in Kenya but also to social and political stability and subsequently food security (Muhula, 2009).

HPPIs between regions in Kenya is well noticeable in respect to regional access to public goods such as education, health facilities, safe water, proper sanitation, and electricity. This thesis will, therefore, argue that HPPIs is one the primary reasons for the persistent food insecurity in Kenya. According to the 2016 global food security index from the Economist Intelligence Unit (EIU), Kenya is positioned in the 83rd index out of 113 assessed countries (EIU, 2016).

Furthermore, based on USAID food security factsheet in 2015, the number of people that suffer food insecurity is estimated to 1.1 million out 46 million, and around 239400 children also suffered acute malnutrition (USAID, 2015). This is a clear suggestion of the seriousness of food insecurity challenge in Kenya, thus making it an important subject matter that needs to be assessed and particularly in the context of HPPIs.

DEFINING THE KEY CONCEPTS

To reduce misunderstanding and ambiguities, it is utterly necessary to define the key concepts in this thesis such as food insecurity, food system and horizontal public policy inequality (HPPIs).

FOOD INSECURITY

The definition for the concept of food security has evolved since the 1974 World Food Conference in Rome so does the concept of food insecurity also. (Smith et al., 1993), pointed out that the term has been defined in more the two hundred different ways in the period of 1973-1993. Importantly, the definition of food security has undergone three interconnected paradigmatic shift before taking the current most dominant definition that was adopted by the 1996 World Food Summit (WFS). (Maxwell, 1996:156), described these conceptual shifts as (1) from macro-level (national and global) to micro-level (individual and households) perspective, (2) from food first to livelihood approach, (3) from objective measurement to subject understandings. The most common definition of security represents it as adequate access to safe and nutritious food necessary for optimal life (FAO, 2006).

In the context of this definition, food security is considered to be determined by three hierarchical pillars: food availability, accessibility, and utilization. Physical availability of food is vital, but not sufficient without accessibility which is also not enough without proper utilization (Barrett, 2010:825). Physical availability of adequate food is often associated with sufficient food supply through either local production, import or even food aid. Food access (entitlement), on the other hand, entails access to resources necessary for acquiring food through legal means including productive resources (land, water, and seeds) and financial generating means such as employment (Maxwell & Smith, 1992:4). Amartya Sen who

pioneered the entitlement concept put forward four legal ways to access food: production-based entitlement (growing of food), labor based entitlement (working for food), trade based entitlement (buying food) and inheritance and transfer based entitlement (being given food by others through aid and donation) (Sen, 1981:2).

The utilization aspects concerns about consumption related issues such as the nutritional value of food, food safety and social and cultural values affecting food consumption. Unlike the issues of food availability and accessibility which consider the “quantity” of food available as the determining factor, the utilization side concerns on “quality” of the food which is determined by the nutritional value and the safety of the food consumed (Dinour et al, 2007:1952). Food insecurity is therefore considered as the inverse of food security, in that people are deemed to be food insecure when they do not have access to sufficient, nutritious and safe food to lead an optimally healthy life.

FOOD SYSTEM

Understanding food security or insecurity is difficult without understanding the nature of the food system because it is an important determining factor for food insecurity. The food system is an interaction of multiple activities which comprises of three hierarchically interconnected activities: food production, distribution, and consumption. These main activities correspond with the three central pillars that determine food insecurity: food availability, accessibility, and utilization (Ingram, 2011). In relation to food insecurity, the food system can become an issue of concern because in this period of globalized food system, unregulated food system often poses a critical challenge to food security of underprivileged people and nations around the world with little or no influence in the structure and regulation of global food system (Godfray et al, 2010: 813).

HORIZONTAL PUBLIC POLICY INEQUALITIES (HPPIs)

In this thesis, horizontal public policy inequalities are intended to mean politically motivated uneven distribution and redistribution of public resources between groups defined by their social identities such as race and ethnicity (Stewart, 2009:316). In respect to food security, we need to be concerned with HPPIs on the ground of the instrumental effects it can pose to the realization of all

desirable goals necessary to the achievement of sustainable food security such as economic, human development, and poverty reduction, social and economic and political stability. It is widely agreed that the more nations are unequal, the higher the level of food poverty (Stewart, 2016:61).

RESEARCH QUESTION & PAPER STRUCTURE

This thesis answer the research question: *Why does Kenya experience persistent food insecurity despite the abundance of resources and opportunities for international development aid?* The paper proceeds as follows. The next part reviews the previous studies conducted on causes of food insecurity. The third part discusses the theoretical framework that guides the paper to answer the proposed research question. The fourth part presents the strategy (methodology) utilized to conduct the study. The fifth part presents the Kenya case and empirical data necessary for answering the research question. The sixth part elucidates the nexus between the persistent food insecurity in Kenya and HPPIs. The paper ends with conclusions and discussion about the theoretical and policy implications of the study.

LITERATURE REVIEW

The issue of food insecurity is complex and multidimensional, no single theory, therefore, has the potential to explain why it occurs as well offer distinctive recommendations on how to overcome it from persisting. The main reason for the absence of such overarching explanatory model is due to the association of food security issues with diverse disciplinary fields such as sociology, economics, political science, climatology, anthropology, nutrition and many others (Devereux, 1993:29). In the present literature, however, causes of food insecurity can broadly be grouped around four broad explanatory approaches: food availability decline, entitlement to food failure, utilization failure and political and power dynamics of food security issues. This part, therefore, discusses previous literature on causes of food insecurity based on these four approaches.

FOOD AVAILABILITY DECLINE (FAD)

The FAD approach relates occurrences of food insecurity with the decline of the food supply, which often depends on local food production, food trade or through food aid. The FAD approach is one oldest explanation of food insecurity challenge.

Historically, it dates back to 1790s and one the earliest pioneer is Thomas Malthus, who in his book ““essay on the principle of population...”” brought to the spotlight the challenge of the rapidly growing population to future food security. Malthus argued that the global food production is falling behind the food demand and in someday the world would not be able to feed its growing population. It implies that the population growth would be detrimental to food availability. This is in line with his prominent thought of the global food production increasing in the form of arithmetic progression, whereas the world's population is growing in geometric progression, hence the later will soon overtake the former (Malthus, 1888:6).

The negative relations between food availability and population growth was further advanced by neo-Malthusian scholars, who like Malthus, associate all modern ills that can disturb food availability such as poverty, scarcity of resources and climate change with population growth. Many of these scholars argue that to suffice the future needs, curbing global population growth is utterly necessary (Elhrich, 2009). In a highly referred article, Godfray et al (2010) questions whether the world would be able to feed its population by 2050 when it reaches the expected record of 9 billion. Schade and Pimentel (2010), argues the suffering of more than half of the world population on chronic starvation and malnutrition are due to either scarcity of calories, balanced diet or micronutrients or a combination of all which occur as a consequence of the size of the global population. The growing population will make the food insecurity challenge more severe.

Particularly, in the case of Sub-Sharan Africa, there multiple studies that relate the chronic food insecurity in the region with the faster-growing population. Chen and Ravallion (2008), point out that the persistent food insecurity in Sub-Saharan Africa is as consequence of rapid population growth compounded by low agricultural productivity. Other than population growth, food supply can also be interrupted by natural calamities (crop failure, drought, tsunamis, floods, and earthquakes) (De Haen & Hemrich 2007), human-induced disasters (wars, conflicts, and environmental degradations) (Messer & Cohen, 2007). The food production in the Sub-Sharan Africa is affected by the stochastic rainfall that the region often faces. The challenge of rain failure often affects people in the rural

area who highly depend on agricultural produce for livelihood (Cooper et al, 2008:2).

Kenya can provide a good example in this case because it is among countries in Sub-Saharan Africa that are vulnerable to drought and famine. The failure of rain to fall in the expected time can put more than 80% of Kenya population in a precarious condition and vulnerability to food insecurity since agricultural production is the basis of their livelihood (Glopolis, 2013). Huho and Mugalavai (2010), argues drought as the major challenge to agricultural productions in Kenya especially in rain-dependent arid and semi-arid regions that cover almost 88% of the country. They point out that the tendency and severity of drought have been increasing in Kenya for the last decades, often resulting in total crop failure and death of animals, thus causing severe national food scarcity and more specifically in arid and semi-arid districts.

Studies also show how drought and famine interact with other social processes such conflicts, hence undermining the general economic viability and agricultural production in particular. Clover (2003:9), argues, while Africa manages relatively well in drought, the interaction of drought and civil strife often pose a critical challenge to the food supply. Clover points out that out of the 25 countries in Africa that suffered food crisis in 2003, four of them were countries emerging from civil war and ten of them were experiencing conflicts and civil strife at that time. Food insecurity is more severe in countries with prolonged civil war and conflicts than those that are not undergoing such problems (FAO, 2010:15). White (2005), who assessed the correlation between the persistence food insecurity in Ethiopia and Eritria after the 1998-2000 border war between the two countries links the war between the war and food insecurity that ensued long after the war ended. The global population growth and food scarcity nexus are also central to discourses of food availability decline theories (Lutz et al. 2002).

Since food availability challenge was recognized as a threat to food security, there has been growing speculation on the best way to overcome food availability decline. Other than curbing population growth, scholars of neoclassical economic theory, suggest an increase in global food production with the help of modern

technologies and a laissez fair approach (market dependency) as a viable solution to overcome food scarcity (Gary, 1991). Even though it is empirically proven in many studies that food availability decline is a critical challenge to food security, it has however come under intensive critics from the likes of Amartya Sen, who argue for food insecurity as a consequence of *demand failure* rather than *supply failure*. Sen (1983), for example, argues the existence of food insecurity is more than an issue of supply decline because people suffer in food insecurity even when there is plenty of food available and stable food production.

Sen offers the cases of famine in Ethiopia in the 1972-4, Bangladesh in 1974, and Bengal in 1943 where a significant number of people died due to hunger and malnutrition despite thriving agricultural economy. He, therefore, argues the issue of food insecurity as a matter of access than the availability of food. There are good reasons to believe Sen's argument because even though food availability at the national level might not be equal around the world, there, however, indications of food global food availability that can be accessed through trade. For example, according to the monthly assessment conduction by the Food and Agricultural Organization (FAO) in global cereal production as an example, there is a clear an indication of surplus global cereal crop productions than utilized since 2006-2017 except in the period 2012-2013 when the demand level slightly exceeded the level (see figure 1). Significantly, the global cereal supply was even recorded high contra to the demand side during the 2007-2008 global food crisis which caused disastrous food shortage around the world particularly in the developing countries (FAO, 2017).

The second shortcoming of FAD theories resides on an underlying presumption on correcting food availability challenges through laissez fair approach to the food market. Such assertion presumes equal access and distribution of available food to everyone. In reality when the food supply declines only people who can bear the burden of increased food price will be able to buy the available food leaving others to suffer from hunger and malnutrition. Food availability decline has, therefore, disproportionate effect on the poor people and wealthy people suffer less when food supply decline.

(Figure 1): Global cereal supply and demand



Source: FAO database, 2017

ENTITLEMENT TO FOOD FAILURE

The entitlement to food failure approach emerged as an alternative model to FAD explanation of famine and food insecurity. This debate was pioneered by Amartya Sen in the 1980s as a counterclaim for then dominant food availability decline hypothesis. Unlike the FAD approach that puts emphasis on the *supply* side of food, the entitlement failure focuses on the *demand* side. Based on his assessment of famine in four different famines that occurred in Africa and Asia, Sen established that these famines have occurred not because of food unavailability, rather on failures of the various sets of entitlements. He argues famine and food insecurity occurred in these regions even though the food was available in abundance. Sen points out four legal means of accessing food which then determine food insecurity, rather than merely physical availability of food (Sen, 1981:433).

These include: production-based entitlement (growing of food), labor based entitlement (working for food), trade based entitlement (buying food) and inheritance and transfer based entitlement (being given food by others through aid and donation). Deprivation of all these means, therefore, makes people susceptible to food insecurity (Sen, 1980:2). Sen's entitlement approach is the most dominant explanation for the occurrences of food insecurity. Solving the entitlement challenges is widely popular among policy makers and development practitioners in dealing with development related problems and particularly in the struggle against food insecurity (Krantz, 2001:12). Most of the recent literature on

entitlement failure emphasize the issue of trade based entitlement failure that caused by market failure for supplying food at affordable prices. The market failure does not necessary imply unavailability of food at local, regional and international market rather, demand failure on the part of the consumers due to limited purchasing power.

The potential reasons for limited purchasing power are either failure of exchange entitlement aspects as a result of value loss for assets such as livestock and other products used to exchange or buy food. Second, it could also be as a consequence of labor entitlement failure in which labor market crisis leaves people without employments or reduce their income, hence diminishes financial access to food. Third, it also depends on a combination of an increase in the food price and longstanding chronic poverty of individual(s) (deficiency of material and money to barter food). In the liberal economics, the market responds not to needs of consumers rather the demand in the market (Devereux, 2009:27).

In a case study of famine that occurred in Malawi between the 2001-2002 Devereux (2002), points out that due to increases in stable food price by 500%, it was hard for poor people that relied on the market to buy food due to a combination devalued asset prices, chronic poverty and labor market crisis. This famine costed the life of almost 85000 people due to undernutrition and related diseases. In a more similar case of famine in Somalia in 1999-2000, Devereux (2006), points out the Saudi Arabia ban of livestock import from Somalia due to the outbreak of Rift Valley fever in parts of East Africa caused serious revenue damages to traders and pastoralists who depended on animals for their livelihood. The livestock trade collapse was further exacerbated by severe drought not only further distressing the price but also costed the lives of a large number of livestock.

Important to point is that the accessibility of food at the local level significantly depend on the market behavior at the global level. The 2007-2008 global food crisis can provide an outstanding example in the recent history. The first three months of 2008, the global food prices skyrocketed increasing by almost 83% compared with food prices in 2005 despite surplus food productions. The price of wheat, for example, rose by 130%, while that of rice has doubled. Significantly, those have

control over the food chain can determine the physical availability of food regarding production and distribution, accessibility regarding price as well the nutrition aspect of the food hence the national and global food security (Bush, 2010:119). More than 120,000 globally with the majority in the developing were food insecure during the crisis in 2007-2000 even there was surplus food production globally principally because of entitlement failure of food financially.

Wahl (2009), argues that often food crisis is as a consequence of the global speculative behavior of food commodities by major food companies. This distorts food prices and creates price bubble thus making poor people unable to purchase food. The speculative behavior of food commodity is part of the challenges of agri-food liberalization that delegates corporate companies' exercise of control over the food system. Increases in global food prices translate vulnerability to insecurity in developing countries that rely on food import since the majority of the developing countries have their currency values below the major global currencies such as the US dollar and the Euro. Lack of portability of food means highly food price at the local hence limited purchasing power for low-income families.

Timmer (2012), argues that market behaviors such as hoardings, loss aversion, and price expectation present a serious challenge to food security. When the market commodity prices are driven up by speculative behavior, the most stable food in the world such as rice loses their efficiency properties and normative implications given by trade theory. In a case study of a food crisis in Nigeria in 2005 (Mousseau and Mittal (2006:6), argued the crisis as a consequence of market liberalization. Not excluding the decline in agricultural production, they argued that the greater part of the crisis was as a result of economic inflation caused by the economic liberalization. They advocated for adopting for sovereignty model as a policy in Nigeria to avert a future food crisis.

The merit of accessibility approach, therefore, is that it moves food security debate away from an analytical fixation on the aspect supply decline that dominated the explanation of famine and food insecurity for many decades. It sheds lights on aspects of inequality that exists in the food system which offer some people better entitlement to access food than others, which also make resource deprived people

suffer from hunger and malnutrition even when there an abundance of food in the market. The FAD approach also overlooks the reality that in the capitalist economic system, the market has no legal and moral obligation to meet the subsistence need of people. The major shortcomings of entitlement failure approach, however, is the fact that it puts weight on economic aspects of food insecurity while obscuring the potential effect of social and political factors on food insecurity. Another major critique of the theory concerns on its methodological individualism, in that it lies emphasis on micro-level of food security (individual and household) than macro-level (national and global level) (Devereux, 2001).

UTILIZATION OF FOOD FAILURE

Unlike the literature of food availability decline and entitlement failure that focus on the absence of sufficient food (quantity) as the determining factor for food insecurity, the utilization failure approach is concerned with the quality of food (food safety and nutritious standard) Dinour et al (2007:1952). Traditionally, food insecurity was associated with *under-nutrition* (malnutrition), in recent days, however, there has been a burgeoning literature that associate food insecurity with overnutrition (obesity). This paradox of food insecurity does exist both is noticeable both in developing and developed the world. This exists because people living in poverty might have access to enough kilocalories to meet their dietary need. However, these diets might lack nutritional quality necessary to promote proper health and avert chronic ailments. Significantly, lack of diversification and access to well-balanced, an outcome of food insecurity, causes over-nutrition which translates to obesity (Tanumihardjo et al, 2007:1966).

There are multiple empirical studies that show positive relations between food insecurity and obesity. In cross-sectional samples of 193 women residing in the rural counties of New York, aged 20-39 years Olson (1999), finds that women in the food insecure households were heavier than their counterparts in food secure households. Heaviness was measured based on their body mass index (BMI) with BMI>29 defined as obese. The study came to the same conclusion even when multiple control variables such as educational level, employment status, income level, height and single parent status. Similarly, Adams et al (2003), also found the

relations between food insecurity and obesity based on a random cross-sectional sample of 8169 women in California aged over 18 years. The study used logistical regression to examine the nexus of food insecurity and obesity, utilizing race/ethnicity, income, education, general health status, country of birth and motions as control variables. The study concluded that the number of women experiencing food insecurity without hunger was more prevalent accounting for 13.9% of the sample while only 4.3% suffered for insecurity with hunger. Obesity population was equally higher in food insecure group (31.0%) compared to food secure women (16.2%).

Other than the relations of the nutritious quality of food and food insecurity, the role of food safety in food security has also been receiving growing interests for policy makers and academics. Access to health food is vital for both the health and the well-being of human being. On the other hand, unsafe food which contains harmful substances or contaminated is detrimental to human health as well food security. Harmful agents can get into the food at the different level of the food system (production, distribution, and consumption) (Bhat & Vasanthi, 2003). Some of the hazardous issues that have been receiving attention include pesticide remains, parasites, microbial pathogens, mycotoxins, antibiotic drugs and zoonotic diseases. There has also been growing recognition about the effect of genetically modified food to human health since they contain a lot of toxins and allergens contra to the conventional food (Unnevehr, 2003).

Many studies also point out the relation between personal hygiene, household sanitation, and food safety. Uthman and Aremu (2008), argue that the malnutrition that is highly prevalent in many parts of the developing is as a consequence of improper sanitation which causes an easy exposure to bacterial and parasitic diseases. They point binaries between undernutrition and vulnerability to infectious and fatal diseases. Due to limited access to proper sanitation facilities, open space defecation is widely common in many parts of the developing nations. This, however, detrimental to food safety and food security because improper disposal of waste human waste can cause contaminations and food poisoning. It is widely

agreed that proper maintenance of household sanitation is vital for enhancement of the nutritional status of individuals and households (Walker et al, 2012).

Often related to proper sanitation is the lack or limited access to safe water in many parts of the developing countries, which poses a serious challenge to food security and nutrition status in these countries. Consumption of contaminated water can cause water-borne diseases (cholera, typhoid, and hepatitis) which reduce the nutritional situation of persons affected as result of appetite loss increased metabolism and improper absorption of food into the body (Dewey & Mayers, 2011). This is particularly critical for children since the lack of proper nutrition for children due to diseases can weaken the immune system of a child hence making it more vulnerable to multiple chronic illnesses (Caulfield et al, 2004). In the case of recurrent experience of diarrhea in the early years, for example, hinders the proper physical and cognitive development of a child (Victora et al, 2008).

Furthermore, the social and cultural value also affect food security because food passes through a personal and cultural test before deciding its utilization. This is especially true among indigenous and conservative religious group where certain food is preferable to the other. Mostly traditional food is considered more health and notorious and tasty contra to industrially processed food (Lambden et al, 2007:308). The social norms that define certain types of food as good or bad reduce the diversification of food which is vital nutritionally. It also shrinks options of consumable food available in times of scarcity. This, therefore, makes them more vulnerable to food insecurity than others who are open to multiple options. For example, the Maasai communities in Eastern Africa overvalue animal products such as blood, milk, and meat is preferable to vegetables and other processed food. Consumption of animal products symbolizes their culture. Vegetable food are considered inferior and is only consumed as supplement by women and children when their shortage of food (Århem, 1989:1)

POLITICS AND POWER DYNAMICS APPROACH

Even though the food availability decline, entitlement, and utilization failure prevailed as traditionally dominant explanations of occurrence of food insecurity, there has also been a growing literature that situates food insecurity in the context

of politics and power relations. These literature focus majorly on political and power relations at the national and global level as the major determining factor for food insecurity. A wide range of the studies that focus of nexus between global politics and power relations critically view food insecurity as a consequence of global capitalist economy. Particularly about the current dominant corporate-driven global food system (GFS) that define global food production, distribution, and consumption. The deepening integration of global economy in general and agricultural economy, in particular, is argued to have disproportionately disadvantaged the global South countries.

The structural adjustment policy (SAPs) under which this system is organized requires governments in the developing nations to liberalize their economy in general and agricultural economy in particular. This has for decades deprived these nations of their right to determine their agricultural policies and what work best for the interest and wellbeing of their citizens. The greatest challenge of SAPs that many studies point out is the devaluation of the agricultural economy in the developing nations through dumping of industrially produced surplus products from the developed countries (McMichael, 2005:270). There has also been growing concerns about the scramble for productive agricultural land, often referred as land grabbing, by corporate MNCs and powerful nations in foreign countries particularly in the developing countries, induced by the privatization of agricultural sector.

This was at its peak in 2009 following a preceding two years of the global food crisis in which estimate of 45 million hectores of land had been acquired. The land grabbing came as a result of multiple factors such as increased global food demand due to rapidly growing population, dietary changes in parts of the world, the surge in oil prices that increased demand for biofuel as alternative energy in the developing world. This also includes public policy changes that favor green energy contra to the traditional source of energy (Rulli et al, 2013:1). Land grabbing is often detrimental to the livelihood and wellbeing of pastoral communities and subsistence farmers who get evicted from their land without proper compensations (Borras & Franco, 2010:508). As part of the struggle against the global capitalist system, a rampant growth of food system (re)localization has been noticeable in

many developing countries. This movement is mainly driven by civil society groups, peasant, and even some governments majorly in the South America region.

The most prominent counter corporate food system movement is what is commonly known for the food sovereignty movement that was first popularized by La Via Campesina (LVC), an organization representing the interests of small-scale farmers and peasant communities. Central to food sovereignty movement is the idea of restoring the democratic right of people and nations to exercise control over their food system (Patel, 2009:666). The essence of food sovereignty movement is principally forming an alternative system to corporate food system. Holt-Giménez (2011:3), however, argues that for the movement to achieve its ultimate goal of a structural change it has to prove its potential and address immediate challenges of food insecurity, hunger, malnutrition, and environmental degradation.

Part of the discussions of politics and power dynamic of food security emanates from food as a right thesis. Within these discussion, guaranteeing freedom from “wants” which include among the right to minimum entitlement to food for all people is the key responsibility of the state as enshrined in the Article 25 of the Universal Declaration of Human Right (UDHR) as well in the article 11 of the International convenient of Economic and Social rights (ICESR) (Bourquain, 2008:137). The occurrence of food insecurity food in many parts of the world, particularly in the developing countries is, therefore, considered as the consequence of state failure to live up to their responsibilities in ensuring entitlement of this fundamental right to all their citizens. This often happens in relation to state failure to effectively organize its political, economic and social institutions in providing basic public goods to its citizens (Motala, 2010).

The state failure to deliver public goods is often exacerbated by the lack or the inability on the part of the public to hold their governments accountable and claim their rights. Studies show that the presence of democratic system where there is regular free and fair election is more likely to improve government delivery of food security related public goods than autocratic system (Sen 1999). It does not, however, imply that democracy is always the recipe for food security and authoritarianism the opposite. Smith and Haddad (2000), for example, that tried to

explain what could account for the reduced child malnutrition between 1970-1995 in the developing countries found democracy as statistically less significant in relation to hunger reductions. They found factors such as per capita food availability, improved access to clean water, enhanced public health, and improved social status of women and girls as a statistically more significant correlation to reduced hunger. China and Cuba have been making considerable progress towards the eradication of hunger and the realization of food security without necessarily impressing the Western model of political democracy (Chen, 2010).

Other than the state as an ideal provider of subsistence for survival in times of serious needs, other literature also shade light on the cynical and malevolent side of the state. Instead of safeguarding citizens' right freedom from wants in times of serious needs, in some cases states are solely responsible for the occurrence of famine and food crisis. This could be as a consequence of an intentional neglect of state responsibility, using famine and starvations as political weapon and source of punishment as well unintentional problem caused by poor governance. In most cases in the developing world, political leaders tend to use the legitimate right of the state use violence to safeguard their political interests (Edkins 2002).

Government priorities and how national resources are utilized also determine the level of national food security. A substantial number of studies, for example, show an interplay between state militarism and existence of high level of food insecurity in many developing countries. Militarism is the belief of strong military capability and preference to use military force as a means of settlement to political conflict both at the local and international level. Investment in military capability eschews the role and responsibility of the government to provide public goods such as education, health and basic nutrition for survival. Militarism can generate civil unrest, political violence, political repression, structural inequality and interstate war (Messer & Cohen, 2007).

In an analysis of the impact of military power on food security in 75-79 less developed countries (LDCs), Scanlan and Jenkins (2001), found that militarization (growth of military capacity) is both detrimental and helpful to food security, while militarism is a consistent threat to food security. Enhanced military spending and

associated authoritarianism and tyranny increase food insecurity, while arms production and participation in military activities improve food security. A related issue to militarism that poses a critical challenge to food security in many parts of the world is the use of food as weapons and part of strategic military calculations. In the war, times states tend to impose control over food supply system and food related sources as part of their military strategy with an intention to expose their agri-food power.

The objective is often to weaken the enemy and also suppress and control territories and population that pose a political threat. A typical use of food as a weapon is well demonstrable in the World War and Cold War period where powerful states such as Nazi Germany, USA, and Russia utilized their food power to realize their visions (Gerhard, 2011:335). In the modern days, the use of food as a weapon to suppress enemies was quite prevalent in the developing nations. During the Biafra war in the 1960s, the Nigerian government for example maliciously imposed a restriction to all possible means of supply to the Southern Nigeria dominated by the secessionist Igbo ethnic communities by deploying the Federal military to the region that blocked main routes and ports leading to serious famine (de Montclos, 2009). In a case study of famine that occurred in Southern Sudan in 1983-1989, Keen (2008), argued that the government in Khartoum perpetuated the famine by restricting food supplies from the international organization as well displacing people from their homes by using the government sponsored militias “Janjaweed” to destroy villages and farms in the region.

Another strand of literature concerns about power dynamics and food insecurity. The impact of gender inequality and food insecurity is highly researched in the literature of food insecurity. An extensive number of feminist literature show that the persistent food insecurity in many developing nations is a consequence of gender inequality. It is also argued that gender equality is vital for attaining food security, while inequalities in terms of access to productive resources (land, quality seeds, and fertilizers), financial facilities (credits), access to the labor market and human capital (education and training) is detrimental to food security (Wenhold et al, 2007). A study of 63 developing countries in the South Asia and the Sub-Saharan

Africa in the period of 1970-1995, Smith & Haddad (2000:44), found that 55% of hunger reduction that occurred in these regions over a period of 25 years was as a result of improved of women conditions in the society. They established 43 % of the hunger reduction was as a consequence of improvement and women education and the rest 12% accounted for improved women life expectancy.

Von Grebmer et al (2009), also found a correlation between gender inequality and the position of a country in a global hunger index. Countries with the highest score in the global hunger index are countries with severe gender inequality. Overall gender inequalities create gender disparity in food security. Women and girls are often overrepresented in the undernourished and food insecure population worldwide due to inequality between genders in access to food (De Schutter, 2013:1). Studies also show the difference in the food security level between a male-headed household female-headed household in the developing world. Female-headed households are often more susceptible to food insecurity than their male counterparts; this is because of unequal control and access to modes of production between genders and inability to access food economically (Akinsanmi & Doppler, 2005; IRIN, 2006).

Despite all forms of gender inequalities embedded in social norms and institutionalized discrimination women in the developing countries including particularly those in the rural areas are often praised for their active contribution to household and community food security (Quisumbing et al, 1995). Women's role in the food security is visible on three main pillars of food security: food availability (taking part in food production), accessibility (help in economic access to food) and utilization by ensuring nutritious balances of food in cooking (Pandya, 2008). Women are also exclusively responsible for household sanitation, caring children and fetching water which is also an important component of food security.

THEORETICAL FRAMEWORK

As discussed in the review of previous studies, causes of food insecurity centers around four broad theoretical explanations: (1) food availability decline; (2) entitlement to food failure and; (3) utilization failure, (4) politics and power dynamics of food insecurity. While the first three theories represent the dominant

traditional explanations on causes of food insecurity, there has been, however, burgeoning interest in the political and power dynamics of food insecurity approach. It is important to point out that none of these approaches can offer an exclusive overarching explanation to why food insecurity occurs so each complement the other. Physical availability of food is vital for food security, it is not, however, insufficient without accessibility to available food, which is also insufficient without proper utilization of food which depend on the safety and nutrition quality of consumed food (Barrett, 2010:825).

To view the food insecurity challenge in more holistic manner, this thesis situates causes of food insecurity in the context of politics and power. Persistent food insecurity around many parts of the world, particularly in the Sub-Saharan Africa and the South Asian region is considered as a consequence of political and power relations challenges. It is the political and power relations between people that determine food security status of individuals or aggregate of individuals. In other words, political and power relations determine who would have access to sufficient, safe and nutritious food. The intention of this thesis is not, however, to approve or disapprove any of the existing theories instead it is trying to contribute to the burgeoning interests of politics and power dynamic of food insecurity. Since this is a broad field, this thesis is particularly concerned with the nexus of *horizontal public policy inequalities (HPPIs)* and food insecurity (McMichael & Schneider, 2011).

While HPPIs, can constitute a substantial threat to national and global efforts to achieve sustainable food security, it has, however, been under-examined in the existing literature of food insecurity. HPPIs concerns about uneven distribution and redistribution of public resources between socially defined groups based on race, ethnicity, religion, gender, class, and geography (rural and urban). This part, therefore, develops the theoretical framework that guides in answering the proposed research question. It starts with a discussion of horizontal inequalities, then followed elaboration of HPPIs, which is the central explanation for the proposed research question.

HORIZONTAL INEQUALITIES (HIs)

Even though the issue of HIs is a critical challenge to development including the realization of food security, it has, however, been under-considered as a matter that can be detrimental to development. The reasons for this lack of interests are many, but the most important potential reason is based on the increasing prominence of an individual-centric model of development which also affected the level of analysis debate in the academic sphere. This has eschewed the importance of group related development as opposed to individual development. In other words, concerns about individual economic and human development seem to supersede concerns on the development of aggregate of individuals (groups) (Stewart, 2002:2). The second equally important reason is based on the longstanding income-centric understanding of inequalities. This is influenced by the understanding of neoclassical economic theory which focuses on measuring inequalities regarding income inequalities between individuals. Income-oriented understanding of inequalities was most dominant in the 1960s (Kuznets, 1955).

Income-centric understanding of in(equality) has, however, come under extensive critics from 1970s since many argued that understanding individual wellbeing solely on income view is minimalistic. Amartya Sen, who pioneered the human development debate were among the major critics of neoclassical economic view of development and wellbeing. Sen, extensively advocated for the centrality human capabilities, opportunities and freedom as proxies for development and human well-being in general (Sen, 1977). This implied a significant pragmatic shift from an income-centric model of measuring inequality to opportunity based assessments (Sen, 1980:218). Sen, believes in enhancement of human opportunities and freedom through equal entitlement to vital public goods such as education, health facilities, water and proper sanitation as well equality of opportunity in the public decision making and protection from violence as an essential features that can substantially influence economic growth and human development (Anand & Sen, 2000:2039)

This is not, however, to suggest that income equality does not matter for individual well-being, but income without entitlement to equal opportunities and

freedoms is futile. Equitable distribution of capability enhancing opportunities and freedom are, therefore, important determining factors for equality (Roemer & Tranno, 2013:99). Like the neoclassical economic theory, Amartya Sen's human development theory, however, emphasize more on individual equality as opposed to group related equality. In other words, both models are concerned with vertical inequalities, defined as inequalities between individuals and households as opposed to horizontal inequalities defined as group inequalities. This focus on individual inequalities has highly influenced the views of policy makers and development practitioners hence making vertical inequality the major concern (Stewart, 2016:62).

While achieving individual equality is overly important, it, however, compromises group related development which is equally important for development including the realization of food security. Horizontal inequalities matter because the inequitable distribution of opportunities and resources can directly have a negative effect on the well-being of the disadvantaged group. It does so by denying groups from means of realizing the well-being such as education, health care service, and political representation and so on. The point is, the welfare of individuals depends on not only their individual conditions, but also that of the social group they define themselves with; race, ethnicity, religious group, and gender (Østby, 2008:483). This is partly because group marginalization can create general perception within the group that they are likely to live with destitution and desperation in eternity. Good examples of group destitution affecting the well-being of individuals include the case African American in the United States, the Apartheid regime in the South Africa and Hutus in Rwanda. Even if individuals in the disadvantaged group succeed, they, however, still suffer from psychological degradation and experience low self-esteem (Crocker & Major, 1989:608).

HORIZONTAL PUBLIC POLICY INEQUALITIES (HPPIs)

Often the source of HPPIs is political power inequalities regarding representation at the top decision-making bodies. Representation deficit in political sphere can contribute to a policy bias concerning the distribution of public resources. Less political representation translates to less bargaining power which in

turn lead to less allocation of resources (Stewart, 2009:318). HPPIs is particularly detrimental to the well-being of the underrepresented group, but it can also have an instrumental spill-over effect to the welfare of the privileged group. It does so by threatening the social, political and economic stability which is inimical to the welfare of all. In this thesis, HPPIs is, therefore, defined by politically motivated uneven distribution or redistribution of public resource between groups differentiated by their social identities such as race and ethnicity.

This public resource can include primary public goods such as education, health care service, safe water, proper sanitation, improved road infrastructure, and electricity to major developmental resources. The challenge of HPPIs is highly pervasive in the Sub-Saharan Africa where political clientelism is a normalized political culture in determining resource allocation between regions or groups within a country (Markussen, 2011:3). HPPIs is shaped gradually and can persist over an extended period until the power of the exploitative group is challenged through revolution. In other words, the group that benefits from the asymmetries tend to sustain its advantages through any means possible including structural and systematic marginalization to use of violence. It is often the group that first gain the dominance that reaps most of the social and economic advantages associated with politics and power (Stewart, 2000:253).

An endurance of intergroup inequalities can become a serious impediment to the social and economic development of individuals in the marginalized group. It as well undermines their potential role to contribute to the well-being of their society in the long term. For example, if entitlement to education for children in one group is systematically lower than those in the different group, the human development of children from the resource-deprived group is likely to be lower than the privileged group (Hick, 1997:1283). Group inequalities in access to public goods can have a detrimental effect on the economic well-being of individuals in the disadvantaged group. Grounded on in Amartya Sen's human development theory, enhancement of human capabilities through equal opportunities regarding access to public goods is considered as an important factor that determines the economic

opportunities of individual(s) as well the reduces poverty level (Anand & Sen, 1997)

A similar understanding is also noticeable in Gary Becker's human capital theory, in which the stock of knowledge and skills of individuals determine the employability of the person and income as well the poverty level. Becker points out that the higher the level of educational attainment the better the chances to get employed and generate relatively high income. Increased income level often translates to improved purchasing power and less vulnerability to food security and the vice versa (Becker, 1995). Moreover, group related inequalities can also pose a threat to social and political stability which are both vital for economic and human development. Group power relations is an important determining factor for social and political stability.

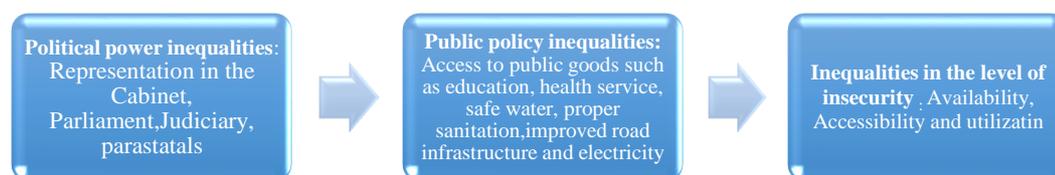
Whenever the cordial relations between groups decline as consequence of one group becoming dissatisfied with its marginal position and other trying to maintain its dominance, occurring of group related conflicts and violence is bound to happen (Alesina & Perotti, 1996). Kenya offers a good example, where an ethnic power struggle is highly prevalent. Since the legalization of multiparty politics in 1990, politically motivated ethnic conflicts was frequent in Kenya after the national election. These conflicts are often between the three main politically dominant ethnic groups: Kikuyu, Kalenjin, and Luo (Honneth, 1996). The last and most severe ethnic violence was witnessed in 2007-2008 following the contested presidential election result that was mainly between Kalenjin and Luo on one side and Kikuyu on the other (Kanyinga, 2009).

It is, therefore, arguable that enhancing group equalities regarding access to social, economic and political resources can have a meaningful effect on the individual welfare as well create more stable social and political stability hence improved economic and human development including food security for all. The issue of HPPIs is quite complex and multidimensional because of the intertwined impact it has on the well-being of individual, society as well broader social and political stability of a nation. For clarity purpose, in the struggle against persistent food insecurity in many developing countries we need to be concerned with HPPIs

on two grounds: on the instrumental ground and ethical ground. Instrumental in a sense that asymmetries in the distribution of public resources between different groups can have an adverse effect on the capability of resource deprived group to acquire means of realizing access to three central pillars of food security: food availability, food accessibility and proper utilization of food (Stewart, 2016:61).

HPPIs can also have a detrimental effect on achieving economic growth and reduction of poverty which also pose a critical threat to food security realization. It is also widely agreed that HPPIs can cause social and political instability which is equally serious threat to food security. On the ethical ground, implying HPPIs can cause persistent structural and systemic inequality between groups which can contribute to sustained vulnerability and marginalization of a particular group. Inequalities between groups can also be transferred from generation to the next also affecting the wellbeing of the welfare of future generations following from deprived group (Stewart et al,2005:4). To rephrase the line of reasoning in this thesis, HPPIs in terms of representation at main decision-making bodies can result in public policy bias. The less represented group gets less share of the public resource, which implies less access to vital public goods necessary in realizing food security.

(Figure 2): **theoretical framework**



METHODOLOGY

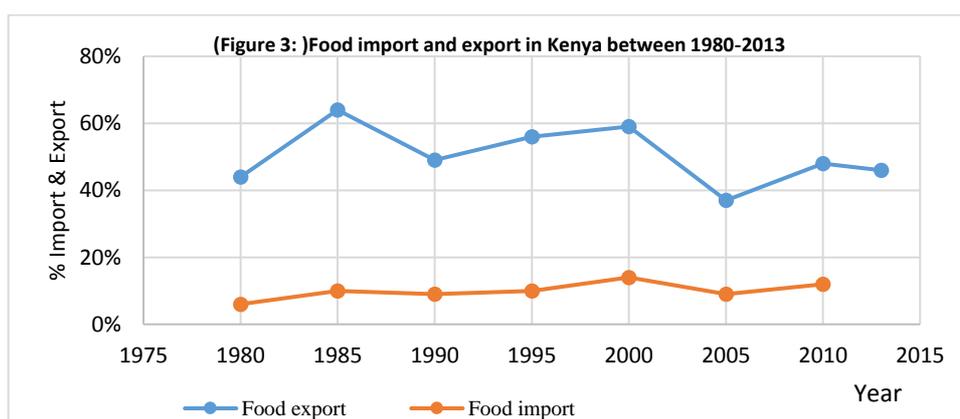
The aim of this thesis is to examine why Kenya experience persistent food insecurity despite the abundance of resources and opportunities for international development aid? To answer this question, the study adopts a case study research design. A case study design is selected because the thesis is trying to offer an explanation to “why” question which is a unique attribute of case study design. An explanatory research question is adopted by virtue of the complexity and multidimensional nature of the issue of food insecurity (Baxter & Jack, 2008:545). Case study design also offers a possibility for conducting an in-depth analysis to

certain social phenomenon both historical and contemporary issues. It is also a flexible method regarding data collection and analysis since it allows *triangulation* of data from multiple sources which contribute to the strength and validity of the research (Eisenhardt, 1989:534-35)

This part of the paper, therefore, accounts for the methodological issues applied in conducting this study, research processes, and strategies. It starts with the rationality for case selection, followed by the method of data collection and analysis and end with a discussion of methodological definitions.

RATIONALITIES FOR SELECTING THE KENYA CASE

Examining the underlying causes of the persistent food insecurity in Kenya can serve as a major litmus test to the continuing food insecurity challenge in the Sub-Saharan Africa. Kenya is a country that is often praised as a breadbasket and financial hub for the Eastern and Central African countries. It is endowed with relatively good climate and sufficient fertile land agricultural production, yet a large number of the Kenyan population experience dire situation of food insecurity and malnutrition (Obudho, 1997). Based on agricultural trade data from the World Bank, there is an indication that Kenya has been a net exporter of food related merchandises since 1980-2013.



Source: from the author using data from the World Bank

This implies that national food availability has not been a problem in Kenya. It is, therefore, paradoxical that more 1.1 million people experienced chronic food

insecurity while over 239400 children also suffered acute malnutrition (USAID, 2015). This, therefore, creates an urgency to examine why a net food exporting nation like Kenya should experience persistent food insecurity. Furthermore, it is enshrined in the Kenyan Constitution that all citizens are entitled to have sufficient access to safe and nutritious food all times. This principle was also incorporated into the 2011 National Food and Nutrition Policy. This requires the government to provide means of entitlement to food as well setting mechanisms of dealing with famine and other natural disasters that can induce transitory food insecurity. So far, there is an indication that the Kenyan government has failed to live up to its responsibility to ensure this vital public good is available to all citizens as required by the constitution (KNFNP, 2011: vii).

The most important reason, however, for selecting the Kenya case is based on the prevalence of persistent horizontal public policy inequality since the birth of the Republic of Kenya in 1963. There is a vivid indication that public resources have not been even distributed in across regions in Kenya which caused regional disparity in access to vital public goods such as education, health facilities, safe water, proper sanitation, improved road infrastructure, and electricity (KDHS, 2014). This is in spite the fact that the Kenyan constitution clearly requires equitable distribution of national resource across regions. The clause 201 that particularly prescribes how public finance has to be managed not only requires the government to ensure equitable development across regions but also obliges the government to address the development challenge of particular regions and groups (Gok, 2010).

DATA COLLECTION AND ANALYSIS

The data utilized in this study are drawn from both quantitative and qualitative oriented sources, from primary and secondary sources. These include policy documents and reports from the Kenya government, reports from high profiled international organizations such as the FAO, UNDP, the World Bank, and media outputs as well academic resources broadly or specifically relevant to food security issues. The data is gathered and analyzed on a progressive basis throughout the research process rather doing it subsequently

PRIMARY DATA SOURCES

This study relies on multiple primary data sources of different Kenya government agencies and ministries as well non-governmental organizations to understand the underlying reasons for the persistent food security challenge in Kenya. One of the most important primary sources is Kenya's Demographic Health Survey report (DHS). This survey has been conducted six times from 1989-2014 by the Kenya National Bureau of Statistic (KNBS) in partnership with the Ministry of Health and some other government agencies such as Kenya Medical Research Institute (KEMRI), the National Council for Population and Development (NCPD) and the National AIDS Control Council (NACC). This survey contains several important issues relevant to this study such ethno-regional disparities regarding socio-economic development, access to safe water, proper sanitation, education, rural development and food poverty. More importantly, it also provides information about maternal and children nutritional status.

The second equally important primary sources this relies on is the Afro-barometer Survey. The Afro-barometer is an independent and neutral research project that measures the public attitude on the social, economic and political atmosphere based on face survey interview. Six rounds of a survey have been conducted since 2006 covering 36 Sub-Saharan Africa countries including Kenya. The sixth round which this study widely utilizes was conducted from March 2014 to December 2014 with a total of 2397 participants across all the eight regions in Kenya. This source is important to this study in that it offers a clear image of regional disparities regarding political representation, access to public facilities, economic development as well gender inequalities which are vital for this study. The third important primary data sources is based on Kenya government policy document on National Food and Nutrition Security policy that was first drafted in 2011 by the Ministry of Agriculture with intent to address the persistent food security challenges in Kenya

SECONDARY DATA SOURCES

The information drawn from the primary data source is complemented with secondary data sources such as reports from high profiles organizations, media

output as well scholarly literature that are specifically and broadly relevant to the Kenya case. One of the main important secondary data sources is the state of the food insecurity in the world report published by the United Nations agency in Charge of the state world food and agriculture (FAO) since 1990. These reports are relevant to this study because they offer a clear picture of the level progress that Kenya has been making towards the realization of food security since 1990. The latest available report which is of particular importance to this study, for example, shades light about the progress Kenya has been making since 1990.

The report shows that Kenya is among many countries in the Sub-Saharan African that failed to realize the 1996 World Food Summit commitment (WFS) of halving the total populations that are undernourished by 2015 as well the Millennium Development Goal (MDG) of halving the percentage population that suffers from hunger by 2015. Another main reason for selecting FAO's report is motivated by the fact that the organization is more neutral and reformist compared with other global institutions. Neutral in a sense that it offers a forum in which all nations can meet as equals to discuss and deliberate food and agricultural policy issues. Ideologically it is considered as a reformist organization because, it is for pushing for reforms in dealing with the sustainability and equity that challenge of the dominant global food system (Holt Giménez & Shattuck, 2011:121). These makes the data from the organization fair, neutral and reliable source for conducting research.

Another secondary data source that is important mentioning is the United Nation Development reports (UNDP) that particularly concerns on Kenya's national development. The organization presented six reports on Kenya's development since 1999. These reports are relevant to this study because they provide information about the poverty level in different ethno-regional territories, gender, and rural-urban lines. It also offers a clear information on disparities in human development, access to public goods, economic development as well participatory governance. The 1999 report, for example, focused on gender and human development, the second report in 2001 focused on economic disparities and its effect on human development and the third report of 2003 focused on participatory governance and

human development. The fourth report of 2006 which also essential for this study focused on human security and human development.

DATA ANALYSIS

With the intent to provide a meaningful explanation to the question why does Kenya suffer persistent food insecurity despite the abundance of resources and opportunities for international development aid? The data analysis in this study is conducted in an iterative process, implying that the data is analyzed and reanalyzed to be able to connect with the information and insights evolving from subsequent data. This model is particularly useful because it offers possibilities to come up with well refined and consistent explanation. The initial process of the analysis involves an exploration on general explanations to food security challenge in Kenya until the data collection become clearly focused on particular issues relating to group inequalities (Srivastava& Hopwood,2009:77).

The analysis involved moving back and forth to different data source quantitative and qualitative oriented sources, primary and secondary sources. Important to point out is part of the quantitatively oriented data is analyzed using charts extracted by using an excel spreadsheet. This is particularly in the case of data from Kenya's Demographic Health Survey and Human Development index from UNDP. On the other hand, the survey data from the Afro-barometer survey is analyzed using a free online data analysis tool accessible through the organization website. This involves six steps: first selecting the survey round, second selecting the country, third selecting the survey question, fourth selecting crossing variables, fifth producing cross tabs and sixth choosing the chart type (Afrobarmoter, 2016).

The qualitatively oriented data from reports, government policy documents, scholarly work is analyzed using content analysis approach. This involves a systematic and in-depth analysis of textual information to uncover the meaning of textual contents. The content analysis of the data significantly involved four main steps. First, this involved sorting out and selecting the sample of documents that are relevant to the research question. Second, it involved selecting specific variables that are particularly relevant to answering the research question. Third, involved selecting the segment of text that contains the relevant variable. Finally, the

variables are thematically grouped (Computer Assisted Qualitative data analysis software) (Halperin & Heath, 2012:321).

METHODOLOGICAL DELIMITATIONS

A single case study design, though it offers the possibility to conduct an in-depth analysis and flexibility regarding triangulation of data from multiple sources (primary and secondary, qualitative and quantitative orientated sources), it, however, lacks the potential for generalizability. This thesis is, therefore, conscious of the fact that the horizontal public policy inequality explanation to the persistent food insecurity in Kenya cannot be used to draw a universal conclusion out of it. In other words, the theory of HPPIs might not fit well in offering an explanation to food insecurity in an egalitarian society that is grounded in equal right and opportunities for all. The Nordic countries could serve a good example here since these countries have properly developed social security scheme and strive after equitable distribution and redistribution of resources. This does not, however, imply that food insecurity does not exist in the Nordic Countries (Tellis, 1997).

A second major methodological limitation that this thesis is aware of concerns about subjectivity issues that influenced the selection of the case, data collection, and analysis. My knowledge about Kenya's politics and public policy inequalities concerning the distribution of resources partly influenced the case selection, data collection, and analysis. Even though good knowledge about the area of study is overly a positive think, it, however, can cause bias regarding the systematic presentation of all evidence. The researchers might tend to conceal presenting vital evidence that is contradictory to one's standpoint and arguments. This thesis, however, ensures optimal sincerity in presenting all evidence even when they do not the central argument of the thesis. To realize this, the thesis is going to triangulate data from multiple sources; primary, security, qualitative and quantitative-oriented data (Andrade, 2009:42-3).

BRIEF BACKGROUND ABOUT KENYA: ETHNIC GROUPING AND POLITICS

The British colonial power that ruled Kenya from 1920-1963 divided up Kenya regions along ethnic lines based on its divide and rule strategy. Eight major administrative provinces were formed which were in turn split into districts. By the

time of the independence 1963, the colonial administrative units coincided with ethnic boundaries. The Kikuyu ethnic group began to dominate the Central province, the Luo in Nyanza province, the Kalenjin in the Rift Valley province, the Luhya in Western province, the Mijikenda in the Coast province and the Somalis in the North-Eastern province. Furthermore, 38 out of the total 41 districts that existed at the dawn of the independence had 50% of their population belonging to a single ethnic community. Only Nairobi city, Trans Nzoia and Mombasa have had diverse ethnic communities (Burgess et al, 2015:1825).

Even though these ethnic groups tend to have an outstanding majority in their regions, however, there over 42 ethnic groups in Kenya in total. The Kikuyu is the largest ethnic group in Kenya and constitutes over 21%, according to the 1989 census, followed by Luhya accounting for over 14%, the Luo 12%, the Kalenjin and the Akamba each over 11% and many other minority ethnic groups. The remaining minority groups make up 42% of the total population (Bratton & Kimenyi, 2008:4). In terms of power seeking, the numerical asymmetry between ethnic groups played a prominent role in political bargaining and alliance formation. Historically, the inter-ethnic bloc with the *tyranny of numbers*-numerical advantage won presidential elections in Kenya (Orvis, 2001). In the run-up to independence in 1960, for example, two parallel political parties were formed: the Kenya Africa National Union (KANU) and the Kenya Africa Democratic Union (KADU).

The KANU constituted majorly Kikuyu and Luo political elites, and it is led by Jomo Kenyatta (Kikuyu ethnic group). The KADU on the other hand composed of majorly ethnic Kalenjin political elites and some other minority groups and was led by Ronald Ngala (Kalenjin ethnic group). When the two parties contested in the first election after the independence, the KANU won the race. However, after two years, members of parliament representing the KADU joined KANU and thus dissolving the party and temporarily winding up opposition to Kenyatta regime (Osamba, 2001:90-1). In March 1966, a left-flank socialist group from the governing KANU defected and formed the Kenya's People Union (KPU) led by Jaramogi Odinga. KPU leaders were against at Kenya leaning towards Western

political orientation. The government responded harshly by banning the party and detaining its leader Jaromogi Odinga on the ground of national security threat. This has drifted Kenya towards an institutionalized *de facto* unitary party system and hence political autocracy (Bedasso, 2015: 370).

When President Kenyatta died in 1978, Daniel Arap Moi (Kalenjin) who was then the vice president took over the power as prescribed in the Kenya Constitution. He followed the footprints of his predecessor maintaining the single party system as a strategy to consolidate the power more. Following the failed coup attempt in 1982 shifted Kenya into *de jure* single political party system. This was also an important defining period for the relations between the Kikuyu and Kalenjin ethnic group who in alliance since when the relations between Kikuyu and Luo ethnic community diminished following Odinga's defection from KANU and formation KPU. Moi feeling Kikuyu as a major threat to his power he switched side forming an alliance with Luhya who is a major party but was non-aligned. He also revamped the government structure replacing the head of the security sectors such as the military and police to his Kalenjin elites (Widner 1992).

The role of ethnicity was also well visible in the 2002 presidential election in which Mwai Kibaki (Kikuyu) in alliance with Raila Odinga (Luo) and many other small ethnic groups defeated Uhuru Kenya (Kikuyu) who was the preferred successor for then president Daniel Arap Moi. This multiethnic grouping brought positive political transformations such as ending political authoritarianism entrenched in Kenya over many decades, carrying out constitutional reforms, reducing suspicions between major ethnic groups and lowering the corruption rate. Unfortunately, however, ethnic politicization did not yet seize in Kenya. All the parties formed afterward were defined by ethnicity rather than political ideology. This is well visible in the current major national parties (Jubilee and Cord/NASA) that are both dominated by distinctive ethnic groups (Bratton & Kimenyi, 2008).

Ethnicization of politics is often detrimental to the well-being of ethnic minorities since the political parties might tend to represent the interest of the major ethnic groups rich with votes exclusively. On the similar note, political leaders are willing to reward the regions and ethnic groups that support them at the expense of

those that do not support them (minority) (Lemarchand, 1972). Other than using ethnicity to come to power, the politicization of ethnicity serves as a fault line in Kenya's stability as noticed in 2008 post-election ethnic violence. Following the declaration of then incumbent President Mwai Kibaki the winner of presidential race amid of disputed election results, ethnic violence ensued between three major groups. Luo, Kalenjin, and Luhya on one side led by Rail Odinga who was the main ally of Kibaki in 2002 and Kikuyu on the other side (Chege, 2008:125).

Since the birth of the Republic, Kenya has had four presidents out of which three of them (Jomo Kenyatta, Mwai Kibaki, and incumbent President Uhuru Kenyatta) all belong to Kikuyu ethnic group that is dominant in the Central province. Kenyatta, the senior, served from 1963-1978, Kibaki from 2003-2013 and Kenyatta the junior from 2013 to date. Daniel Arap Moi, from the Kalenjin ethnic group who also served from 1978-2003 got the presidency maybe by coincidence because he was the vice president when Jomo Kenyatta passed away, thus making him the longest ruling president (Burgess et al, 2015:1819).

HORIZONTAL POLITICAL POWER INEQUALITIES IN KENYA.

The nature of horizontal political power inequality is based on the interaction between ethnicity and politics, which has been the defining feature of Kenya's political system and regional power relations throughout the post-independent period from 1963. There has been also growing religious grouping since 2007 election particularly Muslims. The consequence of group related politics is divided loyalty between the nation and the group. Ethno-regional patronage as has been in the case of Kenya is often detrimental to national developing since resources are not equitably distributed (Cheeseman,2008: 168). In Kenya's it has been a normalized political culture in which the region that has the presidency often reaps the social and economic advantages associated with the political power. Under the Kenyatta rule, the Kikuyu elites dominated the main economic and political spheres in the country. With the help of government, for example, a large number of ethnically Kikuyu people were able to purchase land and plantations in the former white highland in the Rift Valley province owned by the white settlers (Galaty, 2016:112).

Horizontal political power inequality in terms of representation was already visible in the structure of first independent government. The Central province where the president hailed from were over-represented in the Cabinet, permanent secretaries, and important civil service (see Table 1) (Nellis, 1974:12). Similarly, Daniel Arap Moi who succeed him in 1979 also followed his footpath, politically patronizing his Kalenjin ethnic group. For both governments, some regions such as Coastal province (dominated by Mijikenda and Swahili) and North Eastern province dominated by Somalis did not receive representations (See Table 1). In the table, two things are well noticeable. First, the parochialism and self-centeredness of the ruling group increase with increases in the external challenge to their power. This is demonstrable in respect to increased number of cabinet posts for Rift Valley) from 12 in 1985 to 17 in 1994 following the failed attempted coup in 1982.

Second, accumulation of power for ruling group implies shading power for the opposition or non-ruling regions. This applies to the case of Central and Nyanza province that lost their dominance in the cabinet post owing to the alleged threat to Moi's authority. Central shifted from 20 cabinets in 1985 to 4 in 1994. Similarly, Nyanza moved from 16 posts in 1985 to 4 posts in 1994. This followed the failed attempted coup of 1982 accused of Odinga senior and his son (Luo from Nyanza province) (Kanyanga, 2006).

(Table 1): *Ethno-regional inequality in political representations, 1969-2001*

Province	President & Cabinet				Permanent secretaries		Assistant ministers		Commissioners		Ambassadors	
	1969	1972	1985	1994	1969	1972	1969	1972	1969	1972	1985	2001
Central	33	33	20	4	27	45	16	17	57	50	10	12
Eastern	10	10	8	17	21	0	9	3	0	0	8	3
Nyanza	10	10	16	4	26	20	9	9	0	0	17	15
Rift Valley	5	10	12	17	11	10	13	20	29	25	21	20
Western	10	10	8	17	5	10	16	23	0	0	10	12

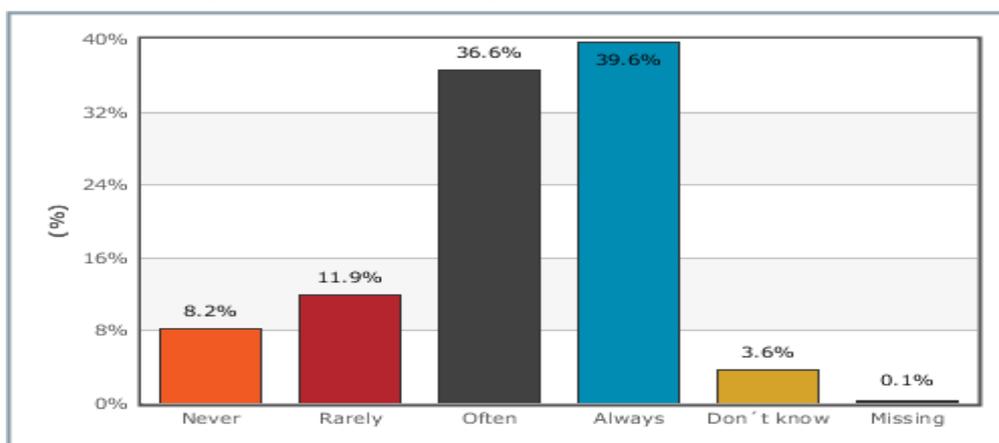
Source: drawn from (Nellis, 1974) and (Kanyanga, 2006). Coast, Nairobi and North Eastern provinces are not included in the table

Since 2003, there is has been an improvement on political representations across ethno-regional territories including North Eastern and Coastal province who were

under-represented in the first two post-independent governments. Often the ethno-regional territory where the president comes from reaps the socio-economic resources that go with the political power. This seems quite normalized political culture in Kenya with less effective accountability system (Steeves, 2006).

The existence of ethno-regional political power inequality and ethnic patronage in the distribution of national resources is widely visible in the public opinions. Based on an Afro-barometer survey round six conducted in 2014-2015 on a total number of 2397 persons across the country, people were asked their perception of the role of ethnicity in the appointments of public posts there is an indication of the popular view that ethnicity plays a role.

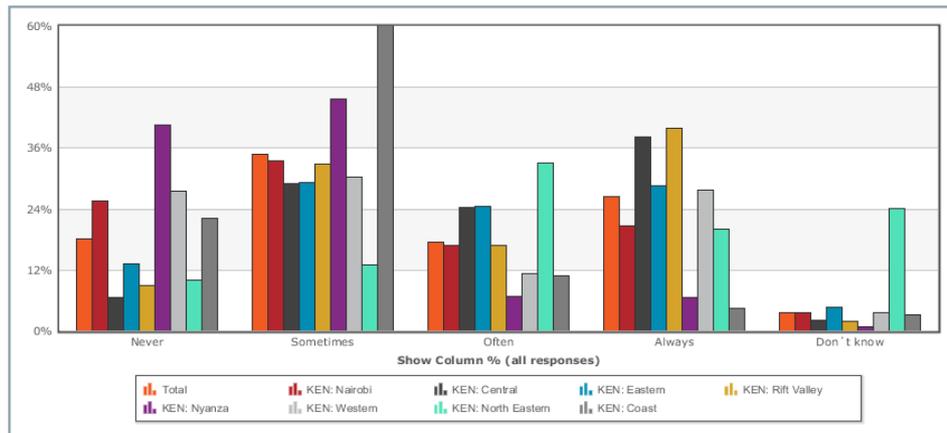
Figure 4: the role of ethnicity in government appointments



Source: from author using Afro-barometer online data analysis

The number of people that believe ethnicity “never” and “rarely” plays a role were the lowest with (8.2%) and (11.9%) respectively. The majority of people believe that ethnicity “always” and “often” plays a role with (39.6%) and (36.6%) respectively. This can suggest a significant correlation between ethno-regional patronages in the national politics (Afro-barometer, 2015). In the same round, when people are asked their perceptions on how often the national elections are counted fairly, the majority of participants from ethno-regions that are historically considered as opposition stronghold often led by Raila Odinga from the Luo-dominated Nyanza province have relatively higher negative perceptions.

(Figure 5): How often is the nation election votes counted fairly?



Source: from author using Afro-barometer online data analysis

About 41% from Nyanza, 27% from West, 25% from Nairobi and 22% from Cost believe that elections are “never” fairly counted. On the contrary, politically dominant ethno-regional blocks such as Central and Rift Valley have had positive perception. Only about 7% of respondents from Central and 8% from Rift Valley believe that election was “never” fairly counted. These are the regions where the current president and vice president come from (Afro-barometer, 2015).

HORIZONTAL PUBLIC POLICY INEQUALITIES IN KENYA (HPPIs)

The discourse of public policy inequality in Kenya has been an issue highly discussed throughout the post-independent period both in public and political spheres. In the early years of independence, the government responded to the existing inequalities between ethnic and regions in several ways. On the one hand, it blamed ethno-regional inequalities to colonial governments, assuring the public an equitable distribution of national resources. On the other hand, as part of the Kenyanization policy, the government encouraged a merit-based recruitment in the public sectors (Rothchild 1969: 704). All successive governments tried to introduce different measures and programs intended to realize socio-economic equity. Some of the prominent programs the government adopted to deal with inequalities include the Constituencies Development Fund (CDF), the District Focus for Rural Development (DFRD) and the Free Primary Education (FPE) (Mwenzwa & Misati, 2014).

Nevertheless, most of these programs did not succeed in reducing socio-economic inequalities principally because of political prioritization problem at the

time of initiation hence disproportionately favoring certain regions over the other. On the other hand, funds are misappropriated by regional leaders who try to utilize it for other reasons other than the intended goals. Significantly, scholars widely agree that, despite government efforts to push for equity in the distribution of national resource, public policy inequality is pervasive in Kenya. Political leaders utilize their power to manipulate in the allocation of state resources. The distribution of public resources and provisions of public goods such as health facilities, education, water and constructions of physical infrastructures is often defined by ethnic and regional favoritism (Mwangi, 2008).

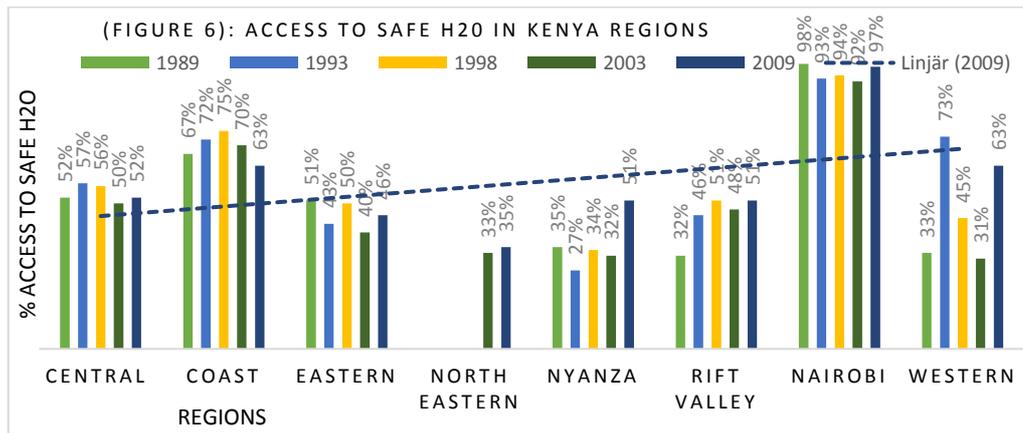
Those regions that are politically well represented in top decision-making structure such as in the ministerial and permanent secretary posts often stand a better chance to get their fair share of national expenditure and development projects because senior government officials have the potential to influence the government distribution of public spending (Oucho, 2002). For example, during the Kenyatta regime in 1963-1969, the Central province topped in the government allocation of revenue to the health sector. Hence, better provision of health service compared to other regions. Based on a report from the International Labor Organization (ILO) produced in 1972, it shows that the Central province has had the lowest proportion of the number of people per hospital bed (1:766), only worse than Nairobi (1:152) and the Coast province (1:511). Politically marginalized regions such as North Eastern, Nyanza and Western province are occupied by over a thousand per hospital bed. The North Eastern being the worst had (1:1308) persons per hospital bed followed by Nyanza (1:1269) and Western (1:1033) (ILO, 1972: 301).

When President Moi took over the power in 1969, he shifted the socio-economic advantage that was enjoyed by Central province to Rift Valley province only exacerbating the social and economic conditions of politically less powerful ethno-regional territories. At the end of his tenure in 2002, Rift Valley had the highest number of qualified doctors across all regions and North Eastern the lowest. Where Rift Valley had 197 doctors, North Eastern province had only nine doctors. Central Province 190, Nyanza 165, Eastern 147, Western 83 and Coast 39 doctors (SID,

2004:21). The next part illustrates several regional public policy inequalities that are created by the horizontal political power inequality in Kenya.

INEQUALITY IN ACCESS TO SAFE WATER

Access to clean water is vital to human life, yet there is an enormous regional disparity in access to safe water in Kenya. In line with the United Nations Development Program (UNDP) definition, drinking water can be considered as safe if obtained through piped water system, protected well, borehole and protected spring (UNDP, 2009:10). Based on this measurement, when assessed the level access to safe water in the eight regions in Kenya from 1989-2009, there is an indication of huge disparity across regions in Kenya



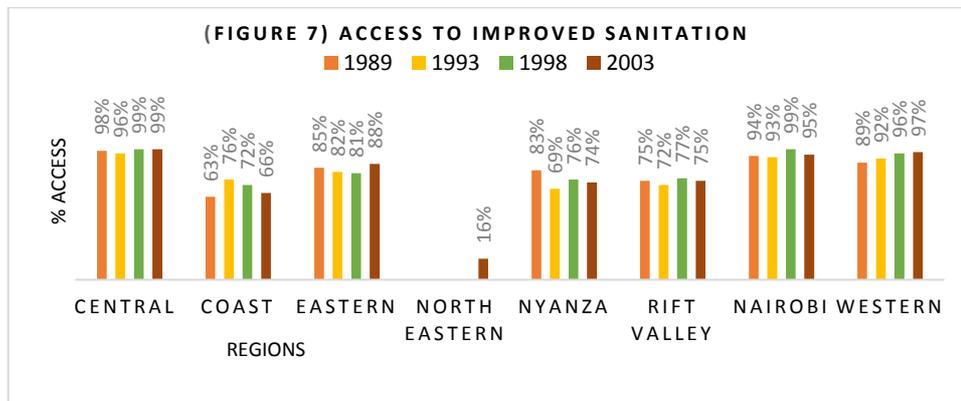
Source: from the author using the Kenya's DHS, 1989,1993,1998,2003 and UNDP report 2009)

In 2009 Nairobi province has had the highest percentage of household with access to safe water accounting for more than 97% and North East province the lowest with only around 35% of households having access to safe water. The Eastern province is also under-advantaged with only 46% of households accessing safe water. After Nairobi, the Coast and Western province have the highest proportion of household with access to safe water accounting for 63%, followed by the Central province with 52%, Rift Valley and Nyanza with proportion 51% accessing safe water. Significantly, these asymmetries in regional access to safe water indicate two things. First, public policy inequalities in terms of distributions of national resources and development projects across different regions. Second, ethno-regional patronage in terms of resource allocation, this is particularly visible

in the case of Rift Valley province that has realized the highest improvement, with only 32% access in 1989 to 51% in 2009. It is arguable that it received disproportionately more resources contra to the other regions during the Moi tenure (1979-2003) who is himself from the region.

INEQUALITY IN ACCESS TO IMPROVED SANITATION

Access to improved sanitation facilities, in this case, latrines, is vital for the public health hence essential public goods. Measured based on households with access to flush toilets and traditional pit latrines, though there is an indication of improved access across regions in Kenya except for the North Eastern province.



Source: from the author using the Kenya's DHS, 1989, 1993, 1998, 200

In 2003, while 99% of households in the Central province have had access to improved sanitation, only 16% of households in the North Eastern province have had it. This signifies the pervasiveness of horizontal public policy inequalities in the distribution of important public goods.

INEQUALITY IN ACCESS TO HEALTH FACILITIES

Regional inequality in access to health facilities is also noticeable in Kenya (see Table 2). The Central province has the highest proportion of the number of doctors hence the lowest doctor to patient ratio. It has also the largest number of private and public health service centers. On the contrary, the North Eastern province is highly underprivileged. Where Central has 190 doctors, North Eastern has only 9 doctors. The ratio of doctor to patient is highest in the North Eastern province compared to other regions. Furthermore, it has the lowest private and public health facility centers across all regions in Kenya.

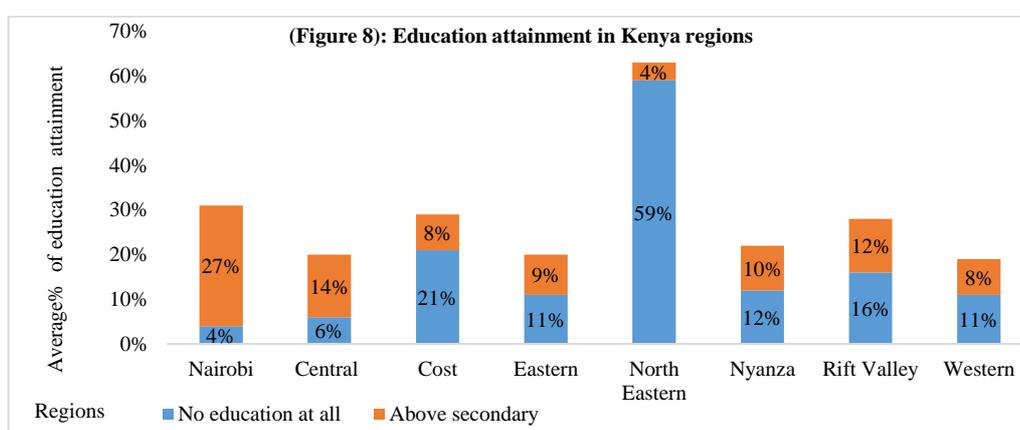
(Table 2): inequality in access to health facilities in Kenya regions

Regions	Number of doctors	Ratio of doctor to patient	Public and private health facilities
Central	190	1:20715	67
Coast	39	1:51155	31
Eastern	147	1:33446	38
North Eastern	9	1:120823	8
Nyanza	165	1:28569	36
Rift Valley	197	1:36481	36
Western	83	1:39554	28

Source: UNDP report of 2006 (UNDP, 2006:33)

INEQUALITY IN ACCESS TO EDUCATION

Regional public policy inequality is also visible in the education sector. Measuring inequality in access to education based on the education attainment.



Source: from the author using Kenya's DHS, 2014

Other than Nairobi city, the Central province has the lowest population among the population with no level of education attainment. Only 6% and its population did not have any level of education. It has also the highest proportion of the population with education level above secondary education. On the contrary, the North Eastern province has the highest population with no attainment of any level of education amounting to (59%) as well the lowest in the attainment of education level above the secondary. On the other hand, the Rift Valley province has a high percentage of the population with education attainment above the secondary level, though it has quite a higher number of the population with no education attainment at all compared to Eastern, Western and Nyanza province.

IN ACCESS TO IMPROVED ROAD INFRASTRUCTURE.

Access to improved road infrastructure is vital for economic and human development since it enhances movement of goods and services. Access to improved roads is particularly vital for achieving food security because it enhances production of food (food availability), reduces food prices (accessibility). Overall it reduces costs of production and transport of food which translate to improved food security. Nevertheless, there is a disparity in access to improved roads across regions in Kenya (see Table 3). Measured in terms of road density- the length of the road per square kilometers, the North Eastern province has the lowest road density in all the regions at 0.1 and Nairobi the highest with 3.2.

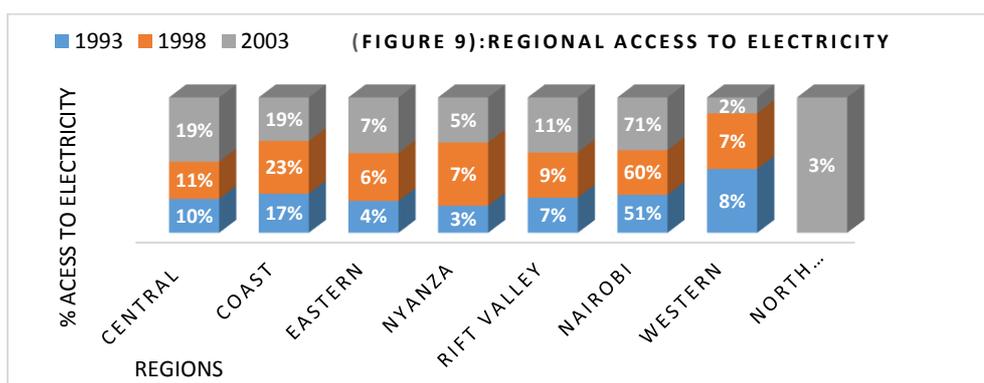
(Table 3): Road density in Kenya regions

Regions	Road density length/square km
Central	2.0
Coast	0.3
Eastern	0.2
North Eastern	0.1
Nyanza	1.4
Rift Valley	0.4
Western	1.4
Nairobi	3.2

Source: Society for International Development (SID), 2004

INEQUALITY IN ACCESS TO ELECTRICITY

Access to electricity even though often considered as a tertiary thing, it is, however, vital for both economic and human development. It is particularly important to food security both in terms of enhancing the level of production as well food conservation. It as well contributes to other aspects of food security such as proper sanitations and entitlement to safe water. According to data drawn from Kenya's demographic health survey from 1989-2003, even though, it is notable that there is uniformity in the limited access to electricity across region excluding Nairobi, yet some regions are far worse off than others.



Source: from the author using the Kenya's DHS, 1989,1993,1998,2003

Based on the 2003 survey data, for example, the Western province (2%), North Eastern (3%), Nyanza (5%) and Eastern (7%) have had disproportionately the lowest proportion of household with access to electricity. The Central province (19%), Coast (19%) and Rift Valley (11%), though show limited access, it is arguable that there is an indication of disparities between regions with high political power leverage than those with low leverage such as the North Eastern province.

THE NEXUS OF HPPIs AND PERSISTENT FOOD INSECURITY IN KENYA

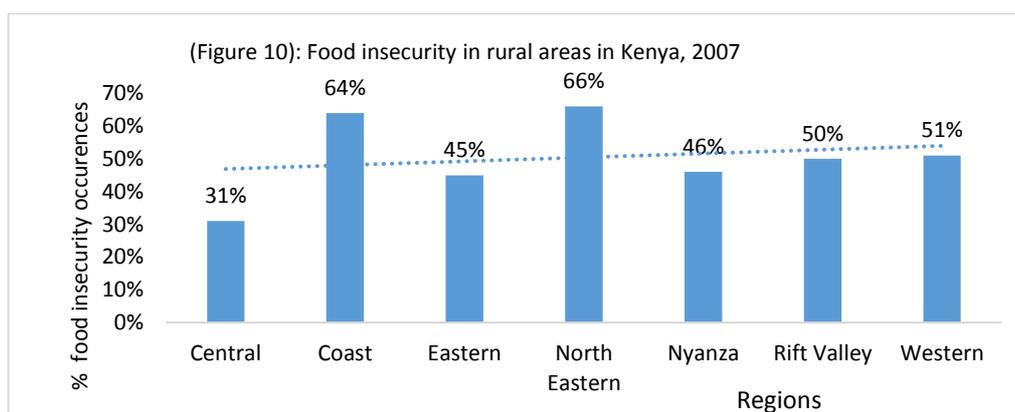
As discussed in the preceding part, throughout the post-colonial error, Kenya's political system has been characterized by ethno-regional asymmetries in political representation as well public policy inequalities in terms of distribution and redistribution of national resources (Kanyanga, 2006). The consequences of these have been regional disparities in entitlement to public goods such as education, health facilities, safe water, proper sanitation, improved road network, and electricity which subsequently contributed to regional variation in the level of food insecurity. As prescribed in the Kenyan Constitution it is the responsibility of the government to ensure every citizen have access to sufficient, safe and nutritious food. This requires not only interventions when there are crisis, but also ensuring sustainable food security for all. Achieving sustainable food security, therefore, requires equal entitlement to vital public goods that enhance the realization of food security (Gok, 2010).

Significantly, achieving an ideal food security requires non-food resources such as access to safe water, proper sanitation, education, health care services, improved

road infrastructure, and electricity. As shown, until now the government of Kenya has failed to ensure equitable distribution of these resources across all regions. This part, therefore, presents an empirical data suggesting correspondence between regional disparities in access to public goods and food insecurity status. It then elucidates how HPPIs in terms of access to public goods presented in the previous part contributes to the persistent food insecurity in Kenya, with reference to the three main pillars of food security

REGIONAL VARIATIONS IN FOOD INSECURITY LEVEL

The food insecurity consequence of uneven distribution of vital public goods across regions in Kenya is well evident in regional variation on the level of insecurity. The central province where three of the four presidents since independence hailed from is the least food insecure region, whereas politically underprivileged and resource deprived North Eastern province is the most food insecure region. This disparity is confirmed in the 2007 government commissioned report on the *basic well-being in Kenya*. The report shows that the level of food insecurity in rural areas was highest in the North Eastern province with (66%) occurrence of food insecurity. On the contrary, rural areas in the privileged Central province are recorded as least food insecure areas with only (31.4%) prevalence. The second highest is the Coast province, which is also a public resource deprived region with (63.5%), followed by, Western (51.1%), Rift Valley province, Nyanza province (46%) and Eastern (45.2%).

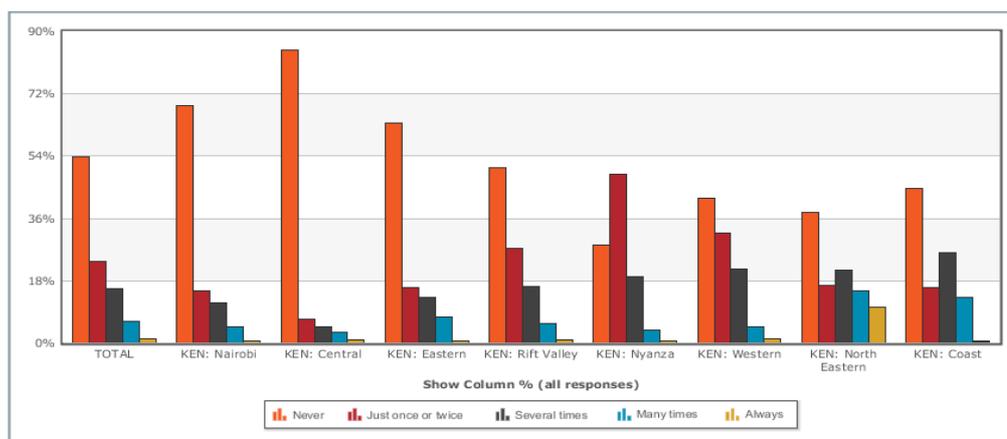


Source: from the author using KNBS, 2007

The food insecurity status also coincides with poverty level, in which again rural areas in the North Eastern province are recorded with the highest rate of *absolute*

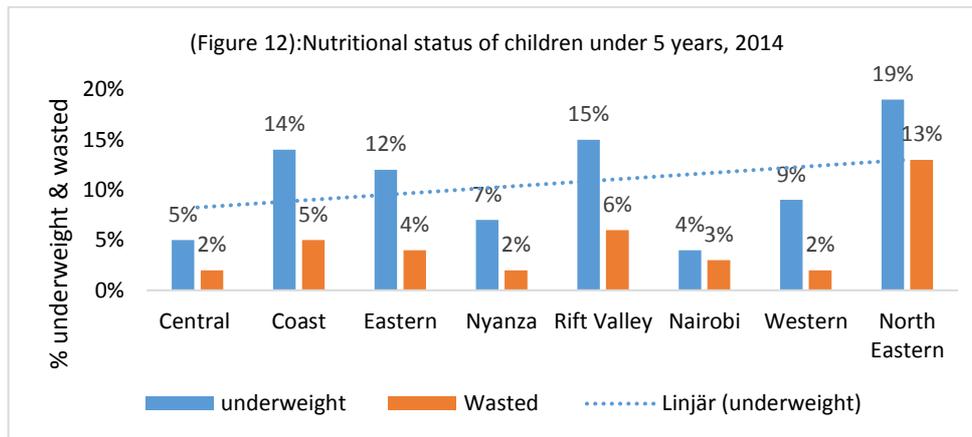
poverty (73.9%) and *hardcore* (46.3%) poverty. On the other hand, the Central has had the lowest in both measurements, with only 30.4% absolute poverty and 11.4% hardcore poverty (KNBS, 2007:45). The interaction between regional distribution of public good and food insecurity is also well demonstrated in the Afro-barometers survey in the 6th round conducted 2014-2016 in which 2397 persons across regions in Kenya participated.

(Figure 11): Food security status across regions in Kenya



Source: from the author using Afro-barometer online data analysis

When participants were asked the question ““over the past years, how often, if ever, have you or anyone in your family gone without enough food to eat?””. The percentage of people that replied they have “never” gone without any food for the past years was highest in the Central province (84.6 %). On the contrary, it was lowest in the North Eastern province (Afro-barometer, 2016). Regional disparity in food insecurity level is also discernable in the nutritional status of children under the age of 5 years. Based on the 2014 Kenya’s Demographic Health Survey that assessed the nutritional status of 21435 children under the age of 5 years across regions in Kenya, it shows that 19% of children in North Eastern province were *underweight*, while only 5.3% of children recorded as *underweight*.



Source: from the author using KDHS, 2014

Again, when measured by weight for height (*wasting*), again children in the North Eastern province accounted for the rate of wasting, with 13% wasting. Comparatively, for the Central province, only 2% of the children were wasted (KDHS, 2014:162). To put together all these, regional variations in the food insecurity status can suggest regional variations in terms of physical availability of food, accessibility and proper utilization enhancing resources such as safe water and proper sanitation. Since the Central province has the lowest food insecurity level; it suggests enhanced physical availability and accessibility to sufficient, safe and nutritious food. The opposite applies to the North Eastern province which has the highest food insecurity rate, poverty rate and highest number of malnourished children. The next part elucidates how HPPIs in terms of distribution of vital public goods negatively affects the three main pillars of food security: food availability, accessibility, and utilization hence potentially contributing to persistent food insecurity in Kenya.

HPPIs AND FOOD AVAILABILITY

Sustainable physical availability of food through either local production or supply from external sources (trade and food aid) is a fundamental factor for realizing food security. This depends on access to production and supply-enhancing resources such as education, health care service, improved road infrastructure, and electricity. Limited or lack of access to these resources is equally detrimental to food availability. As shown, regional variation in the level of food insecurity substantially corresponded with regional distribution in terms of access to these

public goods. The North Eastern province which is highly deprived of these public goods is the most food insecure region, while the privileged Central province is less food insecure. Significantly, ensuring equal entitlement of these public goods for all enhances regional and national food availability because the most productive population in Kenya, estimated to more than 80% of the national population inhabit in the rural area (Glopolis, 2013).

Unlike people in the urban areas, the rural population, often have sufficient access to the main productive resource (land), which can help them increase agricultural output if supplied with necessary utilities such as agriculturally related know-how, information, quality seeds and fertilizers, proper transport as well proper health care service. There are many empirical and theoretical studies that suggest positive relations between enhanced human capability and opportunities and increased agricultural productivity. Grounded on Gary Becker's human capital theory, for example, it is argued that improved human capital through access to education and health can enhance human productive capability. In the context of agricultural production, investing in human capital can increase both the output level as well efficiency in production (Becker, 1994:16).

A similar argument is discernable in Amartya Sen's human development theory in which equal entitlement to public goods enriches human capabilities as well opportunities that can contribute to their wellbeing (Anand & Sen, 1997). Concerning entitlement to education, for example, wide ranges of empirical studies show positive relations between educational attainment and improved agricultural productivity for farmers. In a meta-analysis drawn from the results of 18 previous studies on the role of education and productivity of small-scale farmers in 13 countries in Asia, Africa, Latin America and Europe, Lockheed et al (1980:61), concluded that education is increasing the level of production by 7.4%. In a case study of small scale farmers in Western Kenya, Moock (1981:738), concluded a positive relation between the level of production and educational attainment above the third grade.

Other than increased output, educational attainment also enhances efficiency in production by minimizing wastage of productive resources such as land, seeds,

fertilizers and water while still maximizing the out. Appleton and Balihuta, (1996:2), points out that literacy empowers one to follow guidelines for utilizing agricultural chemical and other modern technologies to minimize wastage and health hazards. One uses numeric skills to determine the right dosage to be utilized, and it as well helps one in planning and decision makings. The basic idea here is that farmers with education skills are likely to seek new farming ideas and innovation such as high-yield crop varieties and fertilizers and adopt it subsequently leading to increasing in agricultural outputs (Jamison & Moock, 1984: 68).

Furthermore, education enhances food availability by imparting people with a necessary skill for food storage and preservation for long time usage and minimize food wastage. Food preservation also helps environmental sustainability by decreasing land degradation, water, and soil pollution (Bashir & Schilizzi, 2013:1254). Food availability can also be affected by access to improved road infrastructure. Regional inequality in terms of access to improved road network is therefore detrimental to food production and supply of food in some regions, thus jeopardizing regional and national food security. Theoretically, improved road infrastructure not only determine the transfer of food but as well the production level. Improved road infrastructure reduces the transport cost which in turn reduce the price of food commodities. The reduced price increases the demand side which in turn leads to increase in the supply side both in terms of production and distribution (Arrow, 1959:43).

Multiple empirical studies also show the important role of improved road infrastructure to availability. In a case study of rural households in Niger Delta region in Nigeria, Inoni and Omotar (2009), concluded that improvement of road quality by 10% could result in 12% increases in the agricultural produce and 2.2% increase of income for farmers. Improved roads can substantially reduce the price of agricultural inputs such as seeds and fertilizers thus increasing the productive level (Gregory & Bumb, 2008). Dercon et al (2009:1), also points out that improved road infrastructure enhances transfers of new agricultural information and technology and other extensions such credits that can also increase productive

capacity. In terms of supply, improved road infrastructure increases faster and safe supply of easily perishable agricultural products to the market.

Limited accessibility to some peripheral regions in North-Eastern province such as Dadaab district during the rainy seasons is a critical challenge for transfer of some easily perishable products such vegetables to these areas. The Dadaab district in the North Eastern province is home to more than half a million refugees from different parts of Eastern Africa with the majority from Somalia. The majority of refugees in these camps exclusively depend on food handout from UN agencies for livelihood. The poor quality of roads connecting these regions to main towns is exacerbated by landslides during the rainy seasons thus affecting the lifeline of these camps. Food availability, particularly in terms of production, can also be affected by limited access to improved health care. As shown, in 2006 the North Eastern Province of Kenya has had only 9 qualified doctors serving the whole region with an estimate of doctor to patient ratio of 1:120823.

In terms of dealing with general public health challenges and contagious diseases, this proportion is in reality not effective in combating diseases. The impact of limited access to food productivity is a highly researched topic. In a case study of rice farming in Mali, Audibert & Etard (2003), found that an improved household health condition enhances the labor productivity of per man per day by 26%. In a case study of cotton farming in Cote d'Ivoire, Audibert et al (2003), also found malaria having a negative impact on technical efficiency in the production process. In a case study of Ethiopia, Croppenstedt and Muller (2000), also finds significant relations between the health and nutritional status of farmers and agricultural productivity. In a case study of Kenya, Yamano and Jayne (2004), found negative impact between ailment of a household member with HIV/AIDS and the capacity of households to produce its own sufficient food for sustenance. Putting together all these, it is arguable that inequitable distribution of these vital production and distribution enhancing public goods is detrimental to food availability for some regions in Kenya hence affecting food security status at the national level.

HPPIs AND FOOD ACCESSIBILITY

Food accessibility aspect as pointed out previously concerns about the demand side of food rather than the supply side (food availability). Food accessibility depends on physical and financial access to food. Accessibility issue is a particular concern for people that do not produce their own and rely on access to food through or donation. Similar to food availability aspect, food accessibility is affected by access to public goods such as education, improved road infrastructure and access to health service but in a different way. Regarding educational attainment, again applying Gary Becker's human capital theory, education can serve as a means to generate income that can be used to purchase food. Becker argues that the stock of knowledge determines the employability of a person as well the income of the person. This implies the higher the educational attainment, the better the chances to get employed and generate relatively higher income and subsequently less vulnerability to food insecurity (Becker, 1994:17).

Similarly, the positive relation between educational attainment and economic well-being is visible in Amartya Sen's human development theory, which asserts enhanced human capability translates to enhanced economic opportunities and income and subsequently improved food security status (Anand & Sen, 1997:5). Significantly, an income level often translates to increased purchasing power for individuals and households in accessing available food through financial means hence less vulnerable to food insecurity and vice versa. In the empirical literature of food accessibility, income is considered as a central determining factor (Coleman-Jensen et al, 2014:13). In assessing the impact of an off-farm income to household food security based on a survey conducted in rural areas of Kwara state in Nigeria, Babatunde and Qaim (2010), concluded that off-farm income as having a positive net effect on household food security. Furthermore, the study also found that children in families with no off-farm income are more stunted and underweight compared to their counterparts with off-farm income. In a case study of Kenya and Malawi Kenned and Peters (1992), concluded positive relations between household income and nutritional status of preschoolers.

In the regions of Kenya, it is noticeable that the poverty level coincides with regional variations in terms of access to education. Based on the 2007 basic-wellbeing report, the Central province which has the highest educational attainment after Nairobi province has had the lowest poverty rate across regions in the country measuring in terms of *absolute* and *hardcore poverty*. It had 30.4% absolute poverty and 11.4% hardcore poverty. Comparatively, the North Eastern province that is underprivileged in educational attainment has had the population with highest poverty rate accounting for 73.9% absolute poverty 46.3% hardcore poverty (KNBS, 2007: 10). Furthermore, due to the regional disparity in educational attainment, it also noticeable that they vary in terms of employability. For example, in 2002, the Central province which its population had high education attainment above secondary has had 14.3% of its population formally employed. On the contrary, the North Eastern province with low educational attainment after secondary has had less than less than one percent (0.9%) formal employments (SID, 2004:15).

Improved road infrastructure also plays a major role in access to food because the enhanced delivery of products to the market reduces food price which in turn increases the purchasing power of low-income individuals and households hence guarantees sustainable access to food (Minten & Kyle, 1999:467). In an assessment of the effect of time taken to deliver agricultural products to the market and food price, Brenton et al (2013), found that increased time taken due to poor road network increases food price by 11.3% within the same country and 17% for the same region of different countries. Improved accessibility to all regions, therefore, ensures stable food price nationally thus improving food security for all. Other than reducing food price, studies also show that improved road infrastructure can have a substantial positive impact on the overall income of poor people since it creates employment opportunities (Jalan & Ravallion, 2002). Put together all these; it is arguable that, poor road infrastructure in Kenya, particularly in some regions such as North Eastern province which have many rural areas that are highly inaccessible contribute to the persistent food insecurity in Kenya.

HPPIs AND FOOD UTILIZATION

While food availability and accessibility are vital for the realization of food security, they are not, however, sufficient without access to safe and nutritious food. Food availability and accessibility do not guarantee food security when food utilized are not safe and nutritiously balanced. This is affected by the lack of access to safe water, lack of proper sanitation and the health conditions and lack of nutritional education Iram and Butt (2004:755). The lack or limited access to these resources in regions of Kenya is a potential reason for the persistent food insecurity in Kenya. Concerning limited access to safe and adequate water, for example, jeopardizes proper maintenance of individual and general household hygiene hence affecting the consumption of safe and nutritious food (Howard et al, 2003:9). Maximizing food safety and nutritious quality requires an adequate supply of water for consumption (drinking and cooking) as well for maintenance of general household hygiene Cairncross (1990:571). This is not, however, the case in Kenya in which only 35% of populations in the North Eastern province are considered as having access to safe water.

Like many developing countries, a large number of Kenyan population depend on traditional sources of water such as rivers, streams, lakes and open water storage vessels, which is considered as unsafe for human consumption. This is often critical to the public health because consumption of contaminated water can cause water-borne diseases (cholera, typhoid, and hepatitis) (Payment & Hunter, 2001). In relation to food security, Uthman and Aremu (2008:2), points out that the undernutrition in many parts of the developing nations is majorly caused by the prevalence of parasitic and bacterial diseases. Persistent undernutrition also increases susceptibility to more infections, illnesses and consequently leads death. Often related to access to safe water is the issue of proper sanitation and disposal of waste products. Open space defecation and improper disposal of wastes can cause food poisoning and hygiene related diseases thus countervailing achievement of food security.

Based on the 2003 Kenya's demographic health survey, only 16% of household in the North Eastern province have had access to improved sanitation. Contrarily,

99% of households in the Central province have had access to improved sanitation (KDHS, 2003). Such deprived conditions of proper sanitations are detrimental to the food security of this region in particular and Kenya as a whole. Studies also show that lack of proper facilities to dispose of human waste can have a negative effect on household food utilization. This is because poor sanitation can cause food poisoning which in turn can lead to diseases such as diarrhea. This also undermines the nutritional status of affected person since the ability of human body to absorb ingested food is reduced with illness. In the low and middle come income nations, lack of proper sanitation and access to safe water is principal causes of child mortality rate and malnutrition (Walker et al, 2012:1). Diarrhea and malnutrition are often considered as often forming a vicious cycle of relations, a reciprocal cause, and effect. Diarrhea can reduce calorie intake, and nutritional status as result of appetite loss increased metabolism and improper absorption of food into the body Dewey and Mayers (2011). Similarly, malnutrition weakens the immune system of a child hence making them more vulnerable to intestinal infections which can lead to a prolonged suffering of diarrhea (Caulfield et al, 2004). Furthermore, a recurrent experience of diarrhea in the early years of life hinder proper growth and cognitive development of a child (Victora et al, 2008).

Poor access to safe water and proper nutrition is parts of Kenya is further exacerbated by limited access to health care facilities in some regions. People in the deprived regions are disadvantaged both in terms of supply of health facilities and well financial ability to access the available health services. As shown, the North Eastern province, for example, has had only 9 qualified doctors in 2006, making a doctor to patient ratio of 1:120823. Practically, the effectiveness of these number in dealing with a public health challenge in such populous region is questionable. In the case of an outbreak of contiguous diseases, the human cost is likely to be high in conditions like this with a limited number of skilled manpower. The effect of access to health service to nutritional status is well documented. In a survey of 101 households in four rural communities in Gambia, Blaney et al (2009), concluded that the nutritional status (stunting, malnutrition) of children in the age 0-23 month is determined by children's access to health care service. In areas with

limited healthcare service, the high cost of health care can have a negative effect on nutritional status of people with chronic diseases such HIV/AIDS and diabetes (Bernard et al, 2006).

The role of education attainment in enhancing food safety and nutritional quality cannot also be underestimated. Education equips people skills necessary for proper hygiene in order to lead an optimal health condition. Studies show that well education people often lead a better health status than people with education. Similarly, high level of contagious diseases, chronic diseases, poor self-reporting when sick, shorter resilience time to diseases and shorter life expectancy are all associated with low educational attainment (Ross & Wu,1995:719). Education also empowers individuals to be to utilize publically available information concerning nutrition, health, and hygiene to enhance their wellbeing as well food security. Makundi (2003), argues that people who have attained some level of formal education are more likely acquire necessary information about how to enhance the safety and quality of their diet contra to individuals with no level of formal education which subsequently improve their food security status. Furthermore, education improves individuals and household decision making in terms of decision making in ensuring consumption of balanced, nutritious and healthy diet (Gebre, 2012).

CONCLUSION

This thesis examined the question why Kenya experience persistent food insecurity despite the abundance of resources and opportunities for international development aid. The thesis has argued that the persistent food insecurity in Kenya is as a consequence of horizontal public policy inequalities (HPPIs). This is defined by the uneven distribution of resources between regions in Kenya. The consequence of these uneven distribution has been regional asymmetries in access to vital public goods necessary for achieving food security. This thesis presented striking disparities across regions with regard to access to important public goods such as safe water, proper sanitation, education, health care services, improved road infrastructure, and electricity. It was shown that politically dominant Central province is relatively better off compared with other regions, while the less

dominant North Eastern province is the most underprivileged region concerning access to all these public goods.

The thesis also presented an empirical data on the regional food security status, which also suggest a positive correspondence between access to public goods and regional food insecurity level. Again, it was well visible that the Central province is less food insecure compared to other region and resource deprived North Eastern province is the most food insecure region. Horizontal public policy inequality is a threat to economic and human development and particularly the urgency in realizing sustainable national and global food security. The relationship between “group” related political power inequality and food insecurity remains under-examined in the literature of food security. The possible reason for the limited interest in this domain can depend on the deepening interests on individual-oriented development policymaking and individual level of analysis in academic spheres. It is, therefore, utterly important for future studies to consider the challenges of HPPIs in order understand better the challenge of food insecurity and arrive at sustainable solutions (Kuznets, 1955; Sen, 1977).

THEORETICAL AND POLICY IMPLICATION

In the strife against food insecurity and attempt to realize sustainable food security we, therefore, need to be concerned with HPPIs on two ground: instrumental and ethical ground. Instrumental in a sense that uneven entitlement to public goods between groups can have a detrimental effect on the economic and human development of resource deprived group, denying them off “means” to access available food thus making them more susceptible to food insecurity. It is also widely agreed that group inequality can have a negative spill-over effect to national and global well-being since inequality can lead to social and political unrest which are equally detrimental to domestic and global efforts of trying to achieve sustainable food security. On the ethical ground, implying that persistent structural and systemic inequality between groups can contribute to vulnerability and marginalization of the future generations among resource deprived group (Stewart, 2016:61).

This is because the consequences of inequalities are transferred from one generation to the next if it is not addressing promptly. It is, therefore, utterly necessary for future studies to consider the nexus between group related public inequality and persistent food insecurity in the developing nations particularly in the Sub-Saharan Africa and South Asia region which currently identified as the most food insecure regions globally. On the policy level, it is utterly imperative to address horizontal public policy inequalities in order to realize sustainable national and global food security. In respect to the Kenya case, as shown, vital public goods necessary to achieve food security has been unevenly distributed across regions in Kenya throughout the post-independent times. This happened despite constitutional requirement to ensure equitable distribution of national resources in all regions. It is therefore absolutely critical for the Kenya government to come up with a sustainable solution to this lingering challenge and ensure all citizens have equal entitlement to public goods.

Since the horizontal public policy challenges in Kenya is as a consequence of political power inequality across ethno-regional territories, it would be important for the government to consider an affirmative political action that ensures the underprivileged regions are at the same level as the other regions. The basis of doing this could be creating a special quota for the regions that fall behind from the rest of the country as in the case of the North Eastern province. Successful implementation of affirmative political action which enables equal access to all for productive, supply and utilization enhancing public goods can enable Kenya to realize its potential to become secure food nation. Equal access to public goods can contribute to optimization of limited resources such as productive resource (land, water seeds), human capital, and financial resource across all regions which can help the realization of sustainable food security (Stewart, 2002:20-21).

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