THE INFLUENCE OF KASS FM IN THE PROMOTION OF FOOD SECURITY
AMONG THE TUGEN IN PERKERRA SUB-LOCATION. A CASE STUDY OF
MARIGAT DIVISION OF BARINGO COUNTY

BY

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DECLARATION

Declaration by candidate :	
This research project is my original w	ork and has not been presented to any other college,
institution or university for academic	credit.
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This research project has been submit	ted for examination with my approval as the university
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DEDICATION

This research project is dedicated to my loving parents Thomas Samoei and the late mum Daisy Samoei, my fiancée O'brain Bolei and the rest of my family.

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May God abundantly bless you all.

LIST OF ABBREVIATIONS AND ACCRONYMS

Kass FM Kass FM International

KARF Kenya Audience Research Foundation

PIS Perkerra Irrigation Scheme

US United States of America

UK United Kingdom

KNBS Kenya National Bureau of Statistics

WFP World Food Program

KRC Kenya Red Cross

NGO Non- Governmental Organization

FAO Food and Agricultural Organization

KARI Kenya Agricultural Research Institute

GDP Gross Domestic Product

UNDP United Nations Development Program

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ABSTRACT

Vernacular radio stations such as Kass FM play a major role in promoting food security in the rural areas. Through the radio station the illiterate and the semi-literate community members are informed and educated on new farming techniques that would ensure that they are food secure. The information learnt from Kass FM as enabled the Kalenjin community to have access and availability of food that would provide them with the required dietary needs to be productive and healthy. This study purposed to establish the influence of Kass FM in the promotion of food security among the Tugen in Perkerra Sub-location; Marigat division of Baringo County. The study was guided by three objectives which focused on the effectiveness of Kass FM in empowering the community towards food security, establishing the extent to which the dialects used were understood by the Tugen community and finally to find out the new skills that the community has implemented from the knowledge learnt.

The two theories that were used are Information Processing Theory and Diffusion of Innovation Theory. Information processing theory propagates that individuals are more receptive to information that either address a need or that are familiar to them. The diffusion of Innovation theory explains the various processes that new innovations undergo in social system so as to be adopted. The study embraced descriptive survey design with a consideration to both the qualitative and quantitative approaches. A sample of 182 was considered for the study. Data was collected using interview guides. The data was analysed using SPSS and presented by use of graphs, charts and tables. Key findings from the study were; Kass FM positively contributed to promoting food security in Perkerra Sub-location by informing the community about national and regional issues. This was by capitalizing on information provided regarding emerging markets that the community could sell their products as well as price comparison from various markets. Secondly, a blend of various dialects were used to communicate on Kass FM thus enhancing understanding from the Tugen community except for the Aror sub-dialect. The community had learnt and implemented new skills from Kass FM which include drought resistant crops to plant, market intelligence and water harvesting and irrigation. This study recommends that Kass FM appoints and work with a dedicated brand ambassador to address issues of food security across the Kalenjin community. Secondly, Kass FM to have a show hosted by an Aror speaking presenter or co-presenter so as to ensure inclusivity of the Aror community.

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CHAPTER ONE

INTRODUCTION

1.0 Background of the study

Radio is one of the most effective mass medium that has been used to promote development in Africa. This is attributed to its cost effectiveness since communication is done orally in the local languagethus promoting education for all thus enhancing understanding among the community M embers. Buhmann & Trudell (2008) in their research found out that the use of vernacular language in training enhanced learning by enabling the trainer to gauge how much information the student knew. Secondly, through the use of vernacular languages the trainer is able to use terms that are familiar to the student unlike the use of foreign languages.

Migisha (2011) states that radio is generally the best tool for getting information out to the poor and illiterate communities since it requires neither reading skills nor money to buy it as newspapers. This phenomenon is also similar in Kenya. The Kenya Audience Research Foundation (KARF), (2014, Q.4) estimated that 20 Million Kenyans out of a population of 40 Million have access to radio.

With the liberalization of radio airwaves in Kenya in the 1990'sthere was an advent of many vernacular radio stations such as Kass FM International (Kass FM). Through this radio station, the development agenda among the rural Kalenjin community continues to be propagated. This is because the station communicates in Kalenjin thus simplifying information to the illiterate and the semi-literate community members. According to (eCentury, 2010) Kass FM broadcasts its programs to the Kalenjin community in Kenya as well as those in United States of America (US) and United Kingdom (UK). Consequently this has broadened the scope of the community.

Baringo County is home to the Tugen dialect among the Kalenjin. In the recent past, the regionhasstruggled with food shortages and insecurity caused by cattle rustling. This is attributed to the fact that most of the land in the county is located in arid and semi-arid areas. In addition, the communities in the region still practice traditional cattle rearing as an economic activity since the livestock are drought resistant. In the end the community is affected by food insecurity causing loss of citizens and cattle. Alamgir & Arora (1991) defines being food secure as a situation where no child, man, woman of whatever age, race or creed goes to bed hungry.

The constant famines and droughts have caused the community in Perkerra Sub-location to have minimal developmental programs in the region. The community spends most of its resources trying to meet basic needs such as food or on basic health care needs that are caused by poor nutrition at the expense of development. Mukela (1989) affirms that food, shelter, clothing, primary healthcare, basic literacy are the cornerstones of development to a community. Absence or critical short supply of this would cause the area to be termed as absolutely underdeveloped.

Perkerra Sub- location has also experienced episodes of insecurity caused by cattle rustling. Alamgir & Arora (1991) indicates that there are two ways in which a community can be food secure. The first would be that the community has a means of production. These would include items such as the availability of land to till and the seeds to plant. The second means would be that the community has to have access to resources to buy the food. These resources would entail, having employment or a source of income. Lack of these two aspects in Perkerra Sub-Location is whatKaranja, (2003) mentions to be the cause of cattle rustling in the region. Communities steal cattle from each other so as to sell them in urban centres where they are slaughtered and sold for meat. Children have failed to go to school due to constant infightings while others are forced to rear the cattle so as to protect their families' only source

of income. This practice has caused a rise in the illiteracy levels in the region. In the end this becomes a vicious cycle of poverty in the region.

Mulwa (2008, p.11) asserts that despite the technological revolution witnessed in the 'era of globalization' Africa is said to have deteriorated from food self-sufficiency in the 1960's to a net importer and major relief beneficiary in the 2000's. This phenomenon is attributed to lack of information to the rural communities. As a result rural communities such as the Tugen in Perkerra Sub-location continue to use outdated farming techniques. Secondly, they often fail to reach a consensus when carrying out a community developmental agenda. This is because members are suspicious of each other's motives. Serageldin etal. (1995, p.7) comments that people in a community must be well-informed so that they can make good choices and have consensus on projects. Kass FM has attempted to bridge the communication gap by communicating to its listeners in a language that they understand. Secondly it has broadened the scope of the rural community connecting them to their community members in the diaspora such as US and the UK.

1.1 Background information on Perkerra Sub-location

Perkerra Sub- Location is one of the 3 sub-location under Marigat division in Baringo County. According to the Kenya National Bureau of Statistics Census (KNBS) (2009) the county neighbours Turkana County to the north, Samburu and Laikipia County to the East, West Pokot County to the West and Elgeyo-Marakwet County to the South. Perkerra Sub-location covers an area of 22.21 sq. kilometres and has total population of 7451 individuals and 1822 households.

Perkerra Sub- location is home to Perkerra Irrigation Scheme (PIS). It is one of the major irrigation schemes that the colonial government initiated in order to ensure adequate food supply to the country. The scheme derives its name from River Perkerra which is the only

permanent river in the region. According to Little & Watts (1994) Marigat division lies in semi-arid climate condition with the annual average rainfall of 630mm. In addition it faces great seasonal and annual fluctuations. As a result the Tugen community in the region practice both pastoral farming and crop farming thus being termed as Agro pastoral farmers.

According to survey done by Food and Agricultural Organization (FAO), (2013, August) Perkerra sub-location had been classified as a stressed region in terms of food security for two consecutive seasons. The region experiences unpredictable and unreliable rains. The local government has tried to combat this by improving on water haversting mechanisms. The gains realized are now at risk of being watered down by occurances of insecurity, displacement and the current floods caused by the upsurge of lake Baringo and lake Bogoria.

USAID fiscal report, (2014, September) indicated that the food security in Baringo county has detroriated. The lack of adequate rainfal has affected the pasture and water availability, resulting in reduced milk production and an increase in food prices. The report further states that Baringo County was provided with food aid from World Food Program (WFP) in August of 2014. This program was cordinated by the disaster management committee comprising of the Kenya Red Cross (KRC), County Government, The National Government and Nongovernmental organizations (NGO's).

Cattle rustling in the region has derailled efforts of ensuring that Baringo county is food secure over the years. This is because livestock are usually lost to the rustlers who treaten lives and the existances of facilities such as schools and health units. Consequently, families are displaced leaving households vulnarable. In his book Misol, (2002) states that cattle raids in the region are well planned with military precision characterized by the use of modern and destructive weapons. This has practically transformed cattle rustling from a traditional practise to a highly organized crime. The stolen cattle are then sold to the neighbouring towns

for meat. This new development has made cattle rustling a very profitable venture leading to its commercialization. Unfortunately, the women, children and the elderly are the most affected by these raids.

Despite these unfortunates turn of events, Serageldin etal. (1995) sees violence as an eye opener and a window for development in a community. This is because it creates tremendous tragedy but at the same time provides an important opportunity for the warring community members to realize that they are occupying the same space and that their individual aspirations cannot be fulfilled if their counterparts have no stake in the problem.

PIS in Perkerra Sub-location is an example of semi-arid land that has been successfully converted into an area for large scale food crop farming. National Irrigation Board (n. d) estimates that the scheme benefits approximately 13,000 people directly and the larger Baringo and Nakuru counties indirectly. With projects such as this the communities living around them can be educated on new farming techniques that they could implement to improve food security. Gachimbi etal (2009/2010) states that barely 20% of the total land area in Kenya is arable land. With the unfortunate change in climatic conditions, arid and semi- arid areas can also be developed so as to secure the country's ability to feed its citizens.

1.2 Profile on Kass FM

Following the liberalization of airwaves in Kenya in the 1990's the radio audience in Kenya were fragmented to form various station formats. Dominick (2011, p.162) defines a station format as a meaningful way of organizing radio stations through a consistent type of programming designed to appeal to certain segments of an audience. On type of a station format is the black and ethnic. This is whereby the station is primarily defined by race or nationality.

Kass FMis an examples of station that is defined to the Kalenjin community. The radio station is part of the Kass Media Group (KMG). The group has other mediums of communication which include, Kass weekly newspaper and Kass TV which is the first vernacular TV to be launched in Kenya. In addition KMG has successfully implemented the Corporate Social Responsibility (CSR) such as Kass Marathon. Through the marathon the Kalenjin rural community has been empowered since upcoming athlete are identified thus opening up opportunities for them.

Kass FM was started with the aim of reaching out to the rural community who had been excluded from other media due to language barrier. Kiprotich (2011) in his interview with Kass FM chairman, Mr. C.K Joshua, indicates that Kass FM's content is done in Kalenjin thus guaranteeing inclusivity, authenticity and originality in the way presentation are done. In addition the station has been able to educate and document culture for coming generation that have abandoned culture due to the influence that western cultures have had on the audiences.

According to the KARF report (2014, Q 2), Kass FM has its reach in Nairobi and its environs which include, Thika, Kiambu and Limuru. In the coastal region it covers the following towns; Mombasa, Mtwapa, Malindi, Changamwe and Kilifi. It also cover parts of western and Nyanza region. In Rift Valley, Kass FM commands the lion's share of listeners in the following regions; Nakuru, Eldoret, Kitale, Baringo, Kapenguria, Gilgil, Naivasha, Bomet, Litein and Kericho. The radio station is also listened to the world over through online streaming. eCentury team (2010) indicates that Kass FM boasts of not only broadcasting in Kenya but in Washington DC and London as well.

The programs on Kass FM are scheduled such that the community is able to be educated on various aspects that affect them in a simplified manner. Some of the programs that are aired on the station include, Kass Leneemet which is a breakfast show that discusses current affairs. Others include, Kass Ogiliot which discusses fundamental legal knowledge that the

community members should know so as to apply in their lives. In addition the community in the diaspora have an opportunity to tele-conference in a program dubbed, KwanetKotisaap which means 'team of seven'. The program is conducted by Dr. KipkoechArapSambu from Washington D.C. During the program the community in Kenya and that in diaspora are given an opportunity to discuss current issues and trends in Kenya and the US. eCentury (2010) indicated that through this programs Kalenjins in globalized societies have passed new technologies and innovations to others in the rural communities.

The radio presenters have become icons and shapers of public opinion. According to Kiprotich, (2011), Kass FM broadcasters have been able to change the perception of the community from being predominantly a rural community engaging in agriculture to massive movement in urban centres venturing in real estate. Secondly, Kass FM has contributed to the economic development of the nation. This is because agricultural field days are carried out live on the radio station. He further emphasizes that Kass FM has become a virtual classroom and lecture hall for peasants and the youth. With time, the community will be able to have a group of informed and educated people from the rural areas who will be empowered to fight poverty, ignorance and underdevelopment.

1.3 Problem statement

In a survey done by FAO (2013, August), the study categorized Perkerra Sub-location as a stressed region in terms of food security. The survey by FAO was further supported by the WFP fiscal report (2014, August) where the organization supported the region by providing them with food aid due to food insecurity. The WFP report attributed the food shortage to lack of adequate rain which caused lack of pasture and water availability. Consequently, the region experienced a drop in food production and an increase in food prices. Inadequate food supply to a community causes the region to be underdeveloped, increases poverty and insecurity.

PIS in Perkerra Sub-location is an example of semi-arid land that has been successfully converted into an area for large scale food crop farming through the use of new skills. National Irrigation Board (n. d) estimates that the scheme benefits approximately 13,000 people directly and the larger Baringo and Nakuru counties indirectly. Vernacular radio stations play an important role in educating and informing the rural communities. Buhmann&Trudell (2008), mentions that this is because it is able to communicate to the literate, semi-literate and the illiterate in the language that they understand. According to KARF report (2014, Q. 4) the radio station is the most popular in north rift with approximately 56% of share. The Tugen community in Perkerra Sub-location are able to access information that will empower them and ensure adequate food supply. This is because the messages from Kass FM appeal to the community's intellect and emotion.

In studying the influence that Kass FM has on the community at Perkerra Sub-location towards promoting food security this study intended to; investigate how effective Kass FM is in empowering the community towards food security, to investigate how effective the dialects used on Kass FM are to the Tugen community at Perkerra Sub-location and find out which new skills the community has implemented from the knowledge learnt from Kass FM.

1.4 Objective

1.4.1 Overall objective

 To establish the influence of Kass FM in the promotion of food security among the Tugen in Perkerra Sub-location; Marigat division of Baringo County.

1.4.2 Specific objectives

 To investigate how effective Kass FM is in empowering the community towards food security.

- ii. To investigate how effective the dialects used on Kass FM are to the Tugen community at Perkerra Sub-location.
- iii. To find out new skillsthat the community has implemented from the knowledge learnt from Kass FM.

1.5 Research questions

- i. How effective is Kass FM in empowering the community towards food security?
- ii. How effective are the dialects used on Kass FM to the Tugen community at Perkerra Sub-location?
- iii. Which new skills has the community implemented from the knowledge learnt from Kass FM?

1.6 Scope and limitation of the study

The research was limited to Perkerra sub-location. Attempts were made to explore the views of the different inhabitants who practice farming within the region. The study was be limited to men, and women with households. In addition, the study consists of the views of producer of the programs at Kass FM, farmers, businessmen and women, civic leaders and agricultural extension officers attached to the region.

1.7 Significance of study

According to the Institute of Economic Affairs (2014) the national budget for the year 2014/2015 notable allocated 3% of the KS 1.54 trillion budget on food security and transforming the Agricultural Sector in Kenya. This, the government intends to use in expanding the quantity of arable land through irrigation. Perkerra Sub-location is one of such regions that could benefit thus curbing the issue of food security and cattle rustling in the regions. With huge investments as this, the government needs to acknowledge the rolethat

vernacular radio stations play to encourage participation by the community thus enhancing food security.

This study will therefore assist the National Irrigation Board through the Ministry of Agriculture to identify ways in which rural communities can be educated and informed about new technology that they can use and adopt to increase their yield. Consequently, the community will be able to improve their economic condition.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.0 Introduction

The literature review that was used for this study were from books, reports and theses. These sources offered different perspectives about radio as a medium of promoting food security, effectiveness of using vernacular language for training in development projects, definition of food security, essential determinants of food security and the state of food security in arid and semi-arid region in Kenya as well as the theoretical framework used in the study.

2.1 Radio as a medium of promoting food security

Radio is one of the mass medium that could be used effectively to ensure participation of rural communities. This is due to the following features as indicated by Dominick (2011). Radio is portable therefore making it easy to carry and go anywhere with it. With the introduction of technology radio sets and receivers have increased due to phones and car receivers. There are nearly as many radio sets as the number of people.

Secondly, Dominick (2011) notes that radio is supplemental. This is because it provides an audio background for activities. People can listen to radio while doing something else. Thirdly, radio is universal. Virtually every household has at least one working radio. Assuming an average household has about 6 individuals then a significant part of the population is reached.

Nowadays radio has become selective. Radio stations choose niche audiences who are narrowly defined by the station format. Dominick (2011) defines stations format as a meaningful way of organizing radio stations through a consistent type of programming designed to appeal to certain segments of audience. The station format would give a radio

station a distinctive personality and attract a certain kind of audience. Black and ethnic is a type of station format which is primarily defined by race and nationality. Coley (2010) categorizes Kass FM International as one such radio station that broadcasts in Kalenjin, with the aim of running news, features and special programs that could interest the selected audiences. The aim of this is to reach both the illiterate and semi-literate. KARF, (2014, Q4) data indicates that radio in Kenya has approximately an audience base of 20 million listeners. Out of this Kass FM enjoys a market share of 26.7% in the Rift topography.

Vernacular radio stations such as Kass FM contribute in enhancing participatory communication. Mulwa (2008) mentions that in order to mobilize the community it is important to appeal to them in their own language. By so doing this will appeal to their hearts as well as their intellect. On a typical day, Dominick (2011) estimates that $\frac{3}{4}$ of adults will listen to radio with an average person spending at least 3 hours. The best times of listening to radio are between 6:00 - 10:00 am and 4:00-7:00 pm.

Singh (1999) indicates that critical shortage or absence of food, shelter, clothing, primary health care, basic literacy, security and property would cause an area to be termed as absolutely underdeveloped. However, with the introduction of information dissemination through vernacular radio, communities will have more exposure and audience's knowledge base is expanded so that they can develop their full potential. In their report, UNDP (2011) indicates that the most basic capabilities for human development is to be knowledgeable and to have access to resources needed for decent standards of living.

The feedback mechanisms offered by radio such as call-ins, SMS, social media are interactive and they allow for a two way feedback channel. Haines (2004) states that through interactive session's participation development should become an open-minded agenda in which many voices are heard. Consequently this would allow multiple concerns and differing aspirations to be accommodated thus reaching a consensus.

2.2 Effectiveness of using vernacular language for training in development project

Buhmann & Trudell, (2008) defines vernacular language as a language that is not formally recognized and is used in informal context only. Often the term is used to refer to mother-tongue. Mother-tongue on the other hand, is defined as the child's first language learnt in the home from older family members. There has been tremendous effort put by various stakeholders in the education sector of Kenya to have vernacular languages factored as part of the languages used for instruction. However, this has been challenged by leaders who prefer to maintain status quo.

Kenya being a former British colony that gained its independence in 1964 has over the years created policies that favour the foreign languages such as English at the expense of the vernacular languages. Cummins & Davison, (2007) states that the Kenyan Education Commission perceive vernacular languages as being unsuitable for instruction. The commission argues that the adoption of vernacular language would be costly as they will necessitate the translation and writing of textbooks and the training of teaching personnel. This view is widely held by the many of the leaders.

According to the Kenya National Assembly official record, (2011, June 8th) it was discussed that Kenya is rich in cultural diversity with over 42 ethnic communities which speak different dialects and languages. These vernacular languages have been instrumental in maintaining a certain kind of national unity among the communities. Moreover, the languages have enabled ethnic communities to display their uniqueness within their localized setting. Sociologically, the use of vernacular languages are a means of identification among members of a community that they belong.

Buhmann & Trudell, (2008) identifies several benefits that communities enjoy when they are trained in their vernacular languages. First, is that it helps promote education for all in the community. The Institute of Development Studies (2015) indicating that at least 38.5% of the

Kenyan adult population is illiterate. With findings such as above mentioned, the use of vernacular language would help to improve the quality of education to these groups.

The trainer would bring the complex concepts to a level that the student understands. Buhmann & Trudell, (2008) highlights that the trainer is able to determine how much information the student knows as well as how they understand it. As a result the trainer determines what teaching moves could be useful to boost the students understanding. Constant interactions between the trainer and the student would enhance the cultural understanding of the student as well as their backgrounds. With this, the trainer will be tactful to issues that would be confrontational to the student, thus causing them to reject the information.

The second advantage of using vernacular language according to Buhmann & Trudell (2008) is that the student is able to assert their confidence in their own communicative abilities. Consequently they express themselves in a manner that they would be comfortable thus making learning enjoyable. This expands the education opportunities for marginalized and underserved groups in rural and poor communities.

Buhmann & Trudell (2008) indicates that the third advantage of using vernacular language is it would be a fresh and different way of executing education policies that have seemed not to work for long. There has been a longstanding language-in-education policies that have been relied on for years to bring economic and social progress yet they have not worked this far. This is because knowledge is communicated in an international language to students who cannot assimilate it.

Peresuh & Masuku (2002) mentions that students first filtering the information that they have heard with an immediate equivalent in their mother tongue. If they do not find an equivalent then they ignore. For example words such as melting and dissolving in Kalenjin do not have a

distinction. Consequently new technology has been left to those who are young and educated in society. Educationally, they learn more quickly through vernacular languages than through an unfamiliar linguistic medium.

Despite this argument, Buhmann & Trudell (2008) warns that students should strive to know at least two languages. The first being their vernacular language and the second should an international language. This is because there is a prevalence of globalization and democratic ideals demonstrated in international and regional languages. In order to gain access to the wider society and participate meaningfully it would be important to have an understanding to both languages.

Danver (2015) defines the Kalenjin group as a Nandi-speaking Nilotic people. It encompasses 9 smaller indigenous groups which include; Elgeyo, Endorois, Kipsigis, Marakwet, Nandi, Pokot, Sabaot, Sebei Tugen and the Terik. Before 1920, these smaller groups, at times referred to as the Kalenjin dialects, were autonomous though they were neighbouring each other. The name Kalenjin, a Nandi word meaning 'I Say', was adopted later to refer to the collective group. In the beginning of the 1950's decade, the dialects spoken by the Kalenjin people were standardized and linguists now classify all the variants of the Kalenjin language where spoken in Tanzania or Uganda as Nandi-speaking. Mostly, this is owed to the missionaries who had set camp in the East Africa region.

Danver (2015) proceeds to indicate that these groups do not have a common indigenous history. However, they share distinctive cultural and traditional practices that mark essential features of the Kalenjin cultures such as the age-grade system and the initiation rites. In all the communities, the men would be assigned to specific age-grades. This would allow for sociocultural bonding and social harmony among the Kalenjin people. The women in the community would assume the age-grade of their husbands once they got married. The main means of education was through stories, proverbs, riddles and songs. Livestock was

considered a sign of wealth and prestige in the community. In addition the livestock could also be used as a currency in trade. To date this is still the case especially during dowry negotiations.

2.3 Definition of food security

Food security has been defined by Alamgir and Arora (1991) as the situation where no person irrespective of their gender, age, class, race or religion goes to bed hungry. Braun (1992) further defines food security as the access of all people at all times to the food required for a healthy life. This is because access to food is considered to be a fundamental right and is synonymous to the right to life. In this study food security will be defined as the phenomenon where every household has access to enough food to ensure adequate dietary intake for all its members.

Alamgir and Arora, (1991) identifies that food security occurs in two tires that are intertwined to each other. These are sub-national level and the national level. In both levels, the household is the basic unit of ensuring that the region is food secure. They proceed to define food security at the sub-national level as the assured availability of food during a given period for individual households to draw on to meet their minimum requirement. The sub-national level would include administrative units such as villages, locations and counties. At the national level, food security is defined as the assurance of access for all to an adequate food supply to meet current minimum requirements per capita during a reference period; which is normally one year and also to meet unexpected shortfalls over a period of three months.

2.4 Essential determinants and effects of food security

Inadequate food supply in a society causes people to perish and insignificant development occurs within the particular community. Whether poor or rich in the society, Braun (1992)

identifies availability and access as the two main essential determinants of food security in a society. Food ought to be available in the local community and national markets whenever it is required. For this to be achieved there has to be relatively smooth market operations, proper infrastructure in form of road network and free flow of information. Availability of food is directly influenced by food production and the trade in the region. For example when there is low production of maize the demand goes high. As a result, the prices increase and more people cannot afford it thus affecting availability.

In Africa, farmers still use inadequate technology in food production. Alamgir & Arora (1991) indicates that often farmers use outdated technology to till, plant and harvest their crops. Consequently, this reduces the yield. A reduction of yield would mean that, farmers will hardly have enough crops to sustain them for a given period. However, Mulwa (2008) notes that even with the introduction of new technologies Africa is said to have deteriorated from being self- sufficient in the 1960's to a net food importer and major relief food beneficiary in the 2000's.

Sighn (1999) indicates that trade in relation to food security is influenced by political, social and economic measures. In this, deliberately efforts are placed against a country or community with the aim of indebting it. Socially, this would therefore mean that the community or country lacks transport facilities or infrastructure that they would require to convert their produce into an income generating industry. Politically, the intended markets for the produce could refuse to buy the products by placing trade sanctions to the country. The result is that development becomes elusive. Consequently, the members of the community will have limited money within their circulation thus crippling the community economically.

The second determinant of food security is the accessibility of food. It is defined as the ability of household to purchase food through off –farm employment opportunities for the poor and women. In this case food insecurity is caused by deteriorating wages and increased

unemployment. In order to curb food shortage, Alamgir and Arora (1991) further states that relief is brought about by food aid. They indicate that one of the disadvantages of such an arrangement is that it not reliable and it encourages dependency. At the national level large imports may mean a trade-off between national food security and national political security.

In addition to the two determinants of food security Folaranmi (2012) indicates that the quantity of food available for a household has to have the adequate nutritional requirements for the members to live healthy and productive lives. This is because there are instances where the amount of food is adequate for the family members but the food fails to meet the required nutrition need for the healthy development of the members. Consequently causing malnutrition and exposing the community to diseases.

In the wake of all this, Folaranmi (2012) identifies two areas in human development that are affected. These are productivity and social participation. When individuals in a community have adequate food supply they become more productive in economic and social activities. As a result the yield and the income increase thus expanding the community's aspirations. Secondly, when communities are food secure they are able to synergies their efforts thus fostering social participation. This is especially the case the in areas such as Marigat where the communities are often engaged in in-fights and community raids due to limited resources in order to provide food for their families. The community learn to work together to enhance social participation thus empowering them to make their own decision and priorities.

Other determinants of food security in arid and semi-arid areas are caused by change in climatic condition, in-fights and cattle rustling and lack of information.

Natural resources in the world over are continually reducing at an alarming rate. Alamgir & Arora (1991) notes that change in climatic conditions have contributed to the increase of drought, famine and disasters. Regions that were known to be the bread baskets are now

registering low yields. In addition, the arable lands are diminishing as the arid and semi-arid areas increase. Gachimbi etal (2009/2010) in their study indicate that 98.1% of Kenya's total surface area is land, Out of this 80% of the land is considered arid and semi- arid.

In-fights and cattle rustling among the communities is one of the internal factors that cause food shortage. According to the District Development plan (1994- 1996) communities that inhabit the arid and semi-arid areas are either pastoralist or practice mixed farming as an economic activity. Consequently as the food shortage gets worse, communities start fighting over the limited resources available for their livestock. Households become displaced as they search for safer places to live in thus reducing other farming activities.

Siele (2014) comments that cattle rustling in postmodern Kenya has transformed from being a customary means of livestock restocking where traditional weapons like bows, arrows and spears were being used to a commercial practice where sophisticated weaponry is used. Misol (2002) states that the cattle raids are well planned with military precision characterized by the use of modern and destructive weapons. This has practically transformed cattle rusting from a traditional practice to a highly organized crime. The stolen cattle are then sold to neighbouring towns for meat. This new development has made cattle rustling a very profitable leading to its commercialization.

Nevertheless, Serageldin etal. (1995) sees violence as an eye opener and a window for development in a community. This is because it creates tremendous tragedy but at the same time provides an important opportunity for the warring community members to realize that they are occupying the same space and that their individual aspirations cannot be fulfilled if their counterparts have no stake in the problem.

Serageldin (1995) continues to mention that lack of information as the other internal factor that causes food shortage. Inability to access the information causes the community not be in

a position to set their own priorities and decisions. To sustain food security in such places, experts would graft a blue print that they would hand down to the communities for execution. As a result projects would collapse as soon as the change agents' terms end. This is because the community would be unable to participate in decision making thus fail to reach a consensus.

With the introduction of vernacular radio in Kenya, Kiprotich (2011) observes this scenario is changing since this station have proved to be powerful tools of change for their listeners. Radio stations such as Kass FM have become virtual classrooms and lecture halls for peasants and the youth. In no time, rural communities will become informed, educated thus placing them at an advantaged position to fight poverty, ignorance and under-development.

2.5 The state of food security in arid and semi-arid regions in Kenya

According FAO (2014), some countries have made significant effort to curb food insecurity in the world while others such as Kenya continue to struggle. Kenya Agricultural Research Institute (KARI) (2012) estimated that at least 10 Million citizen's struggle with food insecurity. In addition, a majority of those who are affected relay heavily on relief food from the government and other agencies. Often, the quantity and the availability of maize in Kenya is used to determine the level of food security. This is because maize is the staple food for households due to the food preference. With the changing environment there is a short supply of this commodity to most households. In addition, communities have limited choices of other food stuffs that would be drought resistant.

The USAID (2014), indicates that cyclical drought has affected Kenya for years. This phenomenon has become more frequent thus limiting the ability of households to recover between the drought cycles. One of the worst drought spells that the country has experienced in the recent past was the 2010/2011 season. It mostly affected pastoralist and rain-dependent

populations of the country. The result was that there was loss of livelihood, lack of food and agricultural resources and limited access to safe drinking water.

USAID (2014) further mentions that the post-elections violence in 2007 contributed to the current state of food insecurity in Kenya. This is because many households that lived in agricultural productive lands in this country were displaced with the rift-valley region being the most affected. Despite the peace that has since prevailed those who own those parcels of land have reduced their investment to buffer themselves in case of another violence.

KARI, (2012) reports that the agricultural sector of Kenya contributes to 24% of the Gross Domestic Product (GDP). In addition, 80% of the population live in rural areas and are involved in agricultural related activities as their main livelihood. The population in Kenya continues to increase. Therefore this has created a strain in families since the size of the land is subdivided to smaller parcels. When households till the parcels of land the yield can only sustain them for a limited period of time. As a result, households have to subsidize their food supply by purchasing food thus incurring huge bills.

Rembold, F etal (2014), notes that rural communities in Kenya heavily depend on labour and self-employment opportunities. Moreover, these groups such as the community in Baringo County are sensitive to any variation in the access to relief food and cash aid. USAID, (2014) highlightsthat other challenges that the communities in Kenya go through are, seasonal flooding, inter-communal conflict, above average food prices and disease outbreak.

In Baringo County and its environs, Rembold, F. etal. (2014) observes that household dynamics are rapidly changing. Fewer families are depending on classical pastoral income and more and more young and well- educated people are moving to urban areas looking for alternative sources of income corresponding to a modern lifestyle and aspiration.

In order to achieve food security FAO (2014) proposes that sustainable political commitment at the highest level of leadership has to be observed. This would entail, placing food security and nutrition at the top of the political agenda and creating an enabling environment for improving food security and nutrition. In line with this, the GOK has placed several policy response in recent food crisis. This include; development of rural agricultural markets and agricultural business skills. In addition since 2012, development of irrigation schemes such as the Perkerra Irrigation Scheme in Baringo County will be a priority for the next 5 years.

To solve the internal factors that contribute to food insecurity, Seralgdin etal (1995) indicates that communities have to be involved so as to ensure the sustainability of development projects. In any case, the affected community is better placed to solve their own problems. Participation of the community has to cut across, all members of the community. Though the leaders of the communities could be spearheading the various projects, it is important to ensure that the leaders have the backing of the youth, women and church. This will enable the project to have the buy-in of the community especially for projects that are related to water, food and family.

Attention ought to be given to availability of information to the community. Through this, the community become empowered and are able to reach a consensus during decision making. Mulwa, (2008) noted that when communities become more involved in development projects they are more willing to make greater sacrifices. Poor communities would especially work best with participatory development communication. This is because Serageldin etal (1995) observed that the more poor a community is the more willing they will be to build partnership that would enable them reach their goals despite the difference that they could have had causing infightings.

The Kenyan government is dedicated in ensuring that development projects are implement and that they become self-sustaining. According to the Budget Guide (2014) the GOK

dedicated 6% of the national budget to national security hence securing the arid and semi-arid regions from cattle rustling. In addition, 3% of the budget was dedicated to food security and transforming Kenyan agriculture.

2.6 Theoretical framework

The theory that will be used in this study will be Information Processing Theory and Diffusion of Innovation theory by Everett Rodgers.

2.6.1 Information Processing Theory

Mccrudden (July12th, 2013) states that the Information Processing Theory discussed how humans process information with amazing efficiency and often perform tasks such as problem solving and critical thinking. The theory has three components; these are the sensory memory, working memory and long term memory.

The sensory memory processes incoming information within a short period of time. The main aim for this is to screen incoming stimuli and process only those stimuli that are most relevant at the present time. The individual's brain uses two aspects to make judgment on particular stimuli that is presented to them. These are; how relevant the stimuli are to the task at hand and whether the stimuli are familiar. Once the stimuli has been vetted and found to be relevant it is then passed on the working memory. As a result this process is fast and often done unconsciously.

Yager etal (2011) proceeds to mention that during the working memory phase is the stage in which a stimuli is assigned meaning and linked to other information. For an individual to speedily process the information they have received, they ought to have a wide resource base for them to draw references. This means that it is important to equip the listeners with basic skill so as to enable them automate stimuli. The information in the working memory is then passed on to the long term memory. This memory acts as a permanent repository for different

types of knowledge and facts. The memory helps the listeners use these prior knowledge when learning new information to promote learning.

McMorris (2005) identifies two main critiques related to the information processing theory. The first one is that, the interpretation of information will depend on the perception of individuals. Despite each individual having the same senses each individual will have varied accounts of the incidents due to the perception. The second critique of the theory is that, individuals will only be capable of producing responses for issues that they have some form of past experiences. This is because the theory is heavily dependent on the long-term memory. As a result, the theory cannot account for novel actions.

The Information Processing Theory helps to comprehend howKass FM listeners are able to make connections between separategaps of the information on food security on radio. The theory further explains how the community is able to create meaning for the new information by connecting new information to ideas already known.

2.6.2 Diffusion of Innovation Theory

The second theory that will be used in this study is the Diffusion of Innovation Theory. Rodger (2003) defines diffusion of information as the process in which an idea, a practices or an object is communicated through a certain channel over time among member of social system. As the information is passed, there are 5 consecutive steps that occur in the process. These steps include; knowledge being passed to the community who then are persuaded to take sides either for or against the new idea. Thirdly, community makes a decision either to accept or reject the idea. If they accept the idea, they then proceed to implement it and confirm based on their evaluation.

Serageldin (1995) indicates that mass media has the ability to mediate, mobilize and serve as a change agents. This is due to its ability to transfer salience of items on agendas to public

agenda. Rodger (2003) mentions that for an idea that is public agenda to be implemented there are five categories of individuals within the community who facilitate the rate at which the community will implement. These are the innovators who often are the fastest to take up new ideas. The second category of individuals is the early adopters. This group has disposable income to accommodate taking risks and also double up as opinion leaders in the community. The third category are the early majority who adopt the innovation once they have accessed the consequences from the early adopters. The fourth and the fifth category are the late majority and laggards respectively. These two groups are sceptic about new ideas. For them to take an idea, they would require individuals or institution that they trust such as the church to convince them into the new technology.

The Diffusion of Innovation Theory continues to propagate that the innovators and early adopters are not necessarily influenced by radio since they are known for their own independence and fairness. However, they look for professionals to give them cues to focus their attention on.

Panayiotis (2009) identifies two critiques that are related to the theory. The first one is that their lacks a common understanding along the innovation decision process. The theory cannot be applied in a community without taking into consideration diverse viewpoints of the innovators. Secondly, according to the theory there is no objective reality when it comes to the interpretation of the maturity and applicability of a technology especially when a very large number of stakeholders are involved.

The aspects discussed by this theory will build a better understanding on which individuals to target with the information on food security in Kass FM so as to facilitate the desired change. The theory also revealed the tedious process that innovations have to take for change to occur in a community.

2.7 Conclusion

Communities are more committed to the implementation and sustenance of projects that they are involved in as opposed to those that are imposed on them. Serageldin etal (1995) notes that mass media is one of the agents of change that can initiate community participation. These deliberate efforts to effect change would be more successful if the community would be allowed to control parts of its own rural development. Consequently, this would strengthen their resource base and increase productivity of the community.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.0 Introduction

This chapter describes the research methodology that was used in collecting and analysing data. The section will be organized along the following subheadings namely; research design, target population, sample and sampling techniques, research instruments, instrument validity, reliability of instruments data collection procedures and data analysis

3.1 Research design

Yogesh & Nath (2010) define research design as a statement of the object of the inquiry and the strategies for collecting the evidences. It also includes an analysis of the evidence and reporting of findings. This study examined the influence that Kass FM has had in promoting food security among the Tugen in Perkerra sub-location; Marigat division of Baringo county. The study used descriptive survey design which focused on both the qualitative and the quantitative approaches in the study. The descriptive survey research was chosen based on the fact that the study would seek to describe the present food security situation in Perkerra Sub-location and attempt to investigate the influence of Kass FM on the Tugen community living in the region. This was conducted by posing questions to the respondents about the influence that Kass FM has had on them.

The aim of the study was to provide the picture of food security in Perkerra Sub-location as it happens and to justify the current practices. Moreover, this will provide information that could influence the decisions that will be made in the community. One of the advantages of using the descriptive survey design is that information gathering is relative fast as compared to other designs.

3.2 Target population

Mugenda & Mugenda (2003) defines target population as the population to which a researcher wants to generalize the results of the study. Out of the total group of these individuals a sample was drawn. The study was targeted to all the women and men with households and the community leaders in Perkerra Sub-location of Marigat division. According to the Kenya National Bureau of Statistics census report (2009) the sub-location has a population of approximately 1822 households, One (1) Sub- chiefs, Four (4) agricultural extension officers and fifty four (54) registered businesses operating within the region. From Kass FM the researcher included the views of the one programs controller and the Managing Director.

3.3 Sampling design

This section entails the size of the population that was used to represent the entire population; sample. It also deals with how this category was determined from the target population.

3.3.1 Sample population and sampling techniques

Mugenda and Mugenda (2003) states the technique used for sampling the population should allow the researcher to use the cases that have the required information with respect to the objectives of the study. For this study purposive sampling was used to ensure that the entire population of the study was represented.

Palys, T (2008) defines purposive sampling refers to non-random (non-probability) sampling technique where by most of the participants are selected for a study because of certain desirable characteristics that they have. Often, purposive sampling is used when there are limited resources such as time and money and when the information that the study seeks to find out is held by a certain members. For this study, food security is achieved when a household is able to have access and availability of food to its members for a given period of

time. Such information is often known to specific individuals in households as it is considered confidential. This study identified men and women who head households. The study used the entire population of local leaders for the study since the population involved was small. From the households selected, the researcher will further use stratified sampling to identify those individuals who have business entities, or practice farming because food security in a region is influenced by accessibility and availability of food in the region.

Gay (1987) says that a sample of 10% of the population is considered to be the minimum while 100% of the population is required for a small population. This study sampled 10% of the households, 15% business entities, and all the agricultural extension officers and the subchief of Perkerra Sub-location. The programs controller and the head of Kass FM Washington represented the Kass FM management team.

The summary of the sample population that will be used is summarized in the table below.

Table 3.1 Table showing summary of the sample population considered

Component	Estimated	Population	Percentage of
	population	considered	representation
Households	1822	183	10%
Business entities	54	8	15%
Sub – Chiefs	1	1	100%
Agricultural Extension officers	4	4	100%
Kass FM management	5	2	40
Total	1886	198	10%

3.5 Research Instruments

The study employed interview guides for the respondents with households and business entities. This instrument gave an opportunity to collect in depth information from respondents who feel at risk of being exposed to vulnerability. This is because the topic under study touches on a sensitive issue among the community members and most of them preferred to be anonymous. Questionnaires were used for the sub-chief, the agricultural extension officers and the management team of Kass FM.

3.6 Instrument Validity

According to Mugenda and Mugenda (2003) validity is the accuracy of inferences which are based on the research results. An instrument is considered valid for a specific group of the respondents. The validity of the instruments was done by involving other master's students and supervisors in discussing the interview guides and the questionnaires. The rationale behind this was that it provided an opportunity to identify inconsistencies in the anticipated results. The suggestions offered were then used as a basis to modify the items making them relevant to the study. Face validity was used by asking a sample of the respondents to answer and comment on the questions in the interview guide. The response provided was therefore rated as long as the content provided would be relevant to what is being measured.

3.7 Instrument reliability

Mugenda and Mugenda (1999) notes that reliability in research findings reflects the consistency that an instrument demonstrates when applied repeatedly under similar conditions. To determine the reliability of this study, a pilot study was conducted. This was done to determine internal inconsistency in the interview guides and detect difficulties that the

respondents were likely to face when responding to the items. On the basis of the pilot study, a few things that proved to be a challenge were adjusted.

Weiner, J (2007) indicates that one of the techniques that can be used to determine the reliability of an instrument is the Test-retest technique. This technique involves the administering of a questionnaire to a respondent twice within an interval of one week. The scores from the two occasions are then correlated using Pearson Product-Moment Correlation formula to determine the reliability coefficient.

$$rxy = \underbrace{N \Sigma xy - (\Sigma x). (\Sigma y)}_{\sqrt{\{N (\{x2\} - (\Sigma X) 2\} N (\Sigma y2) - (\Sigma y) 2\}}}$$

rxy = Correlation coefficient

N =The number of samples

 $\Sigma X = \text{Total score odd items statement}$

 $\Sigma Y = \text{Total score even items statement}$

 ΣXY = The number of multiplication of X and Y

The reliability test was carried out using the above formulae. Mugenda and Mugenda (1999) recommend that correlation coefficient that are between 0.5 to 0.9 are acceptable for a study.

3.8 Data Collection procedures

A permit was be obtained from the University of Nairobi, School of Journalism. Copies of the permit were presented to the chief and sub-chief of Marigat division and Perkerra sub-location respectively. They then further grant permission to visit households under their areas of jurisdiction. The researcher contacted the households through the assistance of a representative from the sub-chief. The representative accompanied the researcher to the identified households. The respondents were required to fill in the responses themselves.

However those who were not be in a position to write were assisted by the respondent by reading out the questions as the researcher wrote the response. Appointments were also arranged with the agricultural extension officers and the management of Kass FM so as to administer the interviews as per the interview guide.

3.9 Data analysis

The raw data collected using the questionnaire were edited to check for errors and omissions and to ensure consistency and accuracy. Both qualitative and quantitative analysis were used. The close-ended and open ended questions were coded. The template was then prepared for feeding into SPSS (statistical package for social sciences). The data yielded was presented in tables, pie charts, graphs and percentages.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents data collected in the field work through interview schedules. The chapter focused on the Interview guide return rate, demographic information of the respondents, data presentation, interpretation and discussion of findings which focuses on the influence of Kass FM in the promotion of food security among the Tugen in Perkerra Sublocation; Marigat division of Baringo County. The chapter will also link the results with literature from studies carried out elsewhere with the aim of drawing a comparison.

4.2 Interview guide return rate

Interview guide return rate is the proportion of the interviews that were successfully conducted by the researcher to respondents. Out of the 191 interview guides conducted only 182 were successful thus constituting a rate of 95%. This was attributed to poor road network and the villages in Perkerra Sub-location being sparsely population.

This is as shown in the table below.

Table 4.1 Table showing the interview guide return rate

Component	Number of Questionnaires administered	Number of questionnaires returned	percentage
Households	183	174	95%
Business entities	8	8	100%
Total	191	182	95%

4.3 Demographic information

The study sought to establish the demographic information of the respondents such the gender, age, their occupation, how long they have lived in the region and the average number of members in their households.

4.3.1 Gender of the respondents

The study sought to establish the gender of the respondents this aimed at ensuring that the views of all the gender were considered for the study.

70%

60%

50%

40%

20%

Households

Business entities

■Male ■ Female

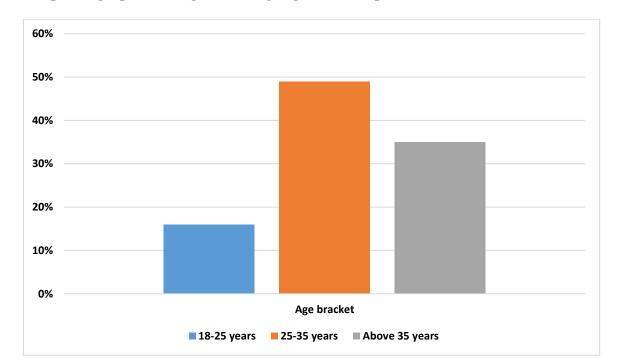
Graph 4.1 Graph showing the gender of the respondents

Source: Author

Graph 4.1 shows that the household had more respondents who were male at 56% while the femalerespondents constituted 44%. This phenomenon was explained by the community being a patriarchal society hence the male figures make decisions in the household. However, this phenomenon is not replicated among the respondents who had business entities. This is because the 38% of the respondents were male while 62% were female. Most business entities in the region were grocery shops that sell horticultural products such as watermelons, onions, tomatoes etc. The women were associated with this kind of trade unlike their male counterparts.

4.3.2 Average age of the respondents

The graph below indicates the average age of the respondents who were considered for the study.



Graph 4.2 graph showing the average age of the respondents

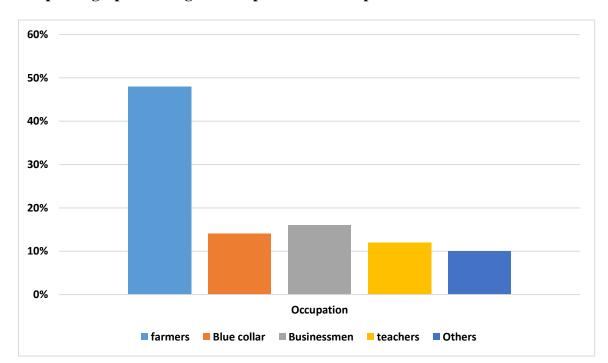
Source: Author

The graph above indicates that majority of the respondents were between 25- 35 years of age at 49%. However, those aged above 35 formed 35% of the population while those aged between 18-25 years formed 16%. This being a rural setting, there is a paradigm shift were by the youth are embracing life in the rural area as compared to going to seek for employment in the urban areas.

The graph below further illustrates the job occupation of the respondents.

4.3.3 The occupation of the respondents

The graph below indicates the occupation that the respondent in the Perkerra Sub-location are involved in.



Graph 4.3 graph showing the occupation of the respondents

Source: author

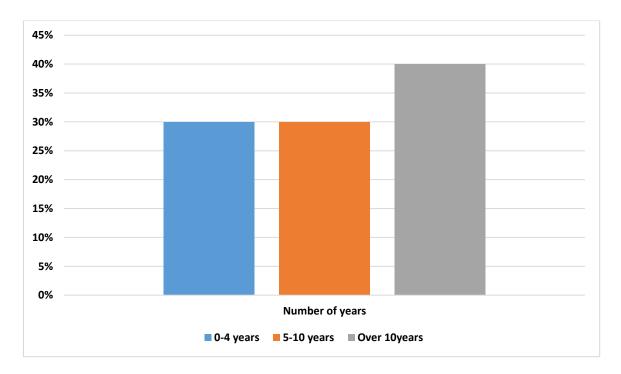
From the graph above, 48% of the population is farmers who plant both food crops and horticultural crops. However, these farmers also double up mostly as businessmen/ women, teachers and blue collar jobs. Respondents with business entities supply their farm produce to their business premises in shopping centers and towns. The farmers are also inhabitants of Perkerra sub-location hence practicing farm with the resource that they allocated by their families.

10% of the population practices other occupations such as nurses, doctors, security personnel and accountants. Theprofessions that fall under these category are highly skilled and those who practice them are not inhabitants of the region. Nevertheless, some still practice small-scale farming by renting farms from the local community.

4.3.4 Average duration that respondent has lived in Perkerra sub-location

The graph below shows the average duration that the respondents have lived in Perkerra sublocation.

Graph 4.4 Graph showing the average duration that respondents have lived in Perkerra sub-location



Source: Author

From the chart, 40% of the respondents have lived in the region for over 10 years. This is a good indication since one is able to monitor the food security trends in the region accurately from the responses gathered. However, those between 0-4 years and 5-10 years have an equal share of 30% each. This trend is attributed to the economic activities practiced in the region. Since the re-opening of the PIS in 1999 there has been an increase of people migrating to Perkerra Sub-location to tap into the upcoming horticultural market thus contributing to increase in business entities. As a result the population has steadily grown thus necessitating expansion of social amenities such as schools and dispensaries causing more deployment of personnel.

4.3.5 Average number of members per household

The following pie chart shows the average number of member per household.

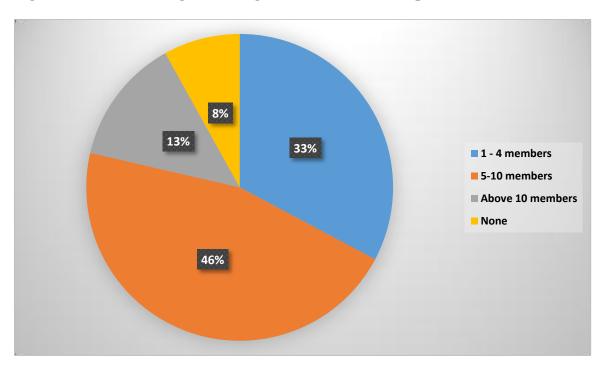


Fig 4.1 Pie chart showing the average number of members per household

Source: Author

The pie chart above illustrates the average number of members per households. From the chart a total of 92% of the respondents constitute households that have more than one member.8% of the population responded that they did not have households. The respondents who did not have households were male respondents aged between 18-25years. However, these respondents were engaged in income generating occupations. 46% of the population had members ranging from 5-10. This indicates that the fertility rate in the region is high.

4.4 Issues that concern the community most regarding food security

The table below illustrates the issues that concerned the community the most regarding food security.

Table 4.2 Table illustrating the issues that concern the community most regarding food security

	1	2	3	4	5
Issues	%	%	%	%	0/0
Insecurity	16	30	24	14	16
Underdevelopment	2	8	28	36	26
Migration	18	18	30	20	14
Death of family members	22	34	14	16	14
Poverty	2	12	18	46	22
School drop-out	21	32	18	13	16

N= 182

From the table above underdevelopment and poverty are the biggest concern for the respondents during food shortages with representations of 62% and 68% respectively. According to the agricultural officers these two are affected by extreme climatic conditions that continue to affect the region such as dry spell or floods. During such climatic conditions the road networks become impassible thus hindering trade in the region. In addition it lowers the yield of the horticultural products and the food crops despite them being drought resistant. Consequently it affects the availability and the accessibility of food thus increasing the cost of food above average prices. The respondents spend lots of money in buying food thus crippling other development agendas and increasing poverty in the region.

Migration has the highest percentage of respondents who were not undecided at 30%. These are attributed to the professionals who had been posted to work in the region and were indifferent about moving to other regions as their call of duties would dictate. Secondly, there were those who have migrated to the region due to the business opportunities that horticulture

farming had provided. These respondents had resources from their ancestral homes that they could go back if their business ventures at Perkerra would fail. Lastly, the inhabitants of the region still practice cattle rearing though not in large scale.

Insecurity, Death of family members and school drop-outs were the least of the issues that concerned the respondents. These contributed to 46%, 56% and 53% respectively. Security in the region has been enhanced due to the presence of an Administrative police post at Marigat town which is approximately 30KM from the area of study. In addition the PIS is well guarded it being a government institution. The sub-chief noted that since the local community embraced agricultural farming, cattle rustling incidences have drastically reduced in the Perkerra sub-location.

The sub-location also noted that Perkerra Sub- location rarely experiences death of members caused by hunger related incidences. This is because at Marigat town, there was the National Cereal and Produce silo that would sell maize at a subsidized price to the community during hunger spells. The sub-chief further noted that there was an increase in the number of youth who had dropped out of school. Often this is due to lack of learned role models from the region. The role models that the youth had are individuals who had become successful in business entities yet they did not complete certain educational levels such as secondary education or college. As a result those who are still in school were lured to drop out of school and join the labor markets.

This findings mimics a study that was conducted by Zepeda E etal (2007) were they noted that over time there has been less pressure in the formal labor markets especially for youth between the age of 15 -34 years. They described this situation in three aspects. The first one is that during the mentioned age bracket there is an age where school is the only choice that the youth have. After this, they are then expected to join the labor market in pursuit of a paid job. However, this takes a long time and a lot of resources which might not be disposable to the

particular youth. In between the youth being required to be in school and joining the labor markets if they engage in home based activity and receive income to meet their current needs they drop-out of school. With time some may go back to school but majority of them do not return.

4.5 The effectiveness of Kass FM towards promoting food security

The table below illustrates how effective the various shows on Kass FM are in promoting food security.

Table 4.3 Table illustrate the extent to which various shows on Kass FM have promoted food security

Type of programs	1	2	3	4	5
	%	%	%	%	%
Regional News	5	9	14	32	40
Business News	0	9	36	45	10
National News	0	6	13	27	54
Features	9	5	45	27	14
Agricultural programs	0	11	41	38	10
Tutorials	10	40	10	15	25

N= 176

National news had the highest percentage at 81% of respondent who felt that the segment promoted food security. According the Kass FM management team this segment constitutes the political and the development agenda as position by the central government. This segment has the highest attraction to the listeners since they acknowledge that the national issues have a rippling effect to the local community. Secondly the Kass FM team also noted that the respondents often consumed the national news so as to achieve certain gratification. This

would include setting the agenda for a community as well as informing certain policies. An example would be the current bilateral trade agreement between Kenya and Uganda that President Uhuru Kenyatta signed. With this the community through their MCA are already looking into ways were perhaps they could benefit from the trade agreement and import maize at a lower price or export their horticultural products to Uganda.

Regional news segments follow closely at 62% responses. This segment is popular since the Kalenjin community is still closely knit with relatives spread across. In addition, the platform gave an opportunity immigrants living in Perkerra sub-location to be informed about their ancestral homes. Besides, the happenings in neighboring regions affected them.

55% of the respondents felt that Business segment offered them information regarding market trends and prices in the region and beyond. As a result, the farmers and business entities in the region are able to know how to price for their goods as well as emerging markets. In addition the segment provides an opportunity for the inhabitants to buy food crops from cheaper markets in times of drought.

Agricultural programs constituted 48% of the responses. The respondents from Perkerra sub-location do not feel that the programs strongly address food security in the region. According to the Kass FM head of production they felt that this trend is expected. This is because their agricultural shows focus on diverse topics and do not address issues that specifically affect the arid and semi-arid areas. However, field agricultural program such as the Kimalel goat auction attracts attention from the arid and semi-arid areas since it is held in Marigat.

Tutorials were concerned the least radio program that address food security at 50%. This is because the program are lengthy and require concentration in order to follow through. This becomes difficult since most of the respondents listen to radio passively. Moreover, the segment would require that the audience employ their creative power to follow through as a result some of the audience would get lost. From the interview with the Kass FM producer,

she was conscious that tutorials are not very effective. However, as a radio station they only use them upon request from clients who have specific agricultural products. To boost its effectiveness though they limit the tutorial to three (3) minutes maximum since they consider that there after the listener will have lost their concentration.

Listenership on the various radio programs vary on the target audience that is intended for it. Chapman, Blench, Kranjac-Beisavlejevic and Zakariah (2003) in their study on North Ghana, found out that different target audiences consume media differently depending on their interests and needs. They noted that radio programs were relevant to a wide audience including both men and women. In addition, rural communities had clear division of labor that are defined for men and women in terms of the crops they grow and activities they are responsible for. Their study recommended that radio programs need to be prepared and broadcast in a way that makes them accessible to the target audience.

In order to ensure that Kass FM address the security need there is constant communication between the radio presenters and the audiences. This is through the use of call-ins, SMS and social media platforms.

The table below illustrates the distribution of the feedback mechanisms used by Kass FM audiences.

Table 4.4 Table showing the feedback mechanism used Kass FM audiences in Perkerra Sub – location

Feedback mechanism	Frequency	Percentage %
Call –ins	106	58
SMS	18	10
Social Media	58	32
Total	182	100

N=176

From the table above call-ins were the most dominant form of feedback mechanism at 58%. This is because the response is immediate. However, the social media platforms have significantly dominated the feedback mechanisms 32%. As indicated in graph 4.2 earlier 49% of the sampled population was aged between 25 -35 years. This explains the use of social media. In addition this would mean that sampled population is tech-savvy and fall under the middle class. As a result, the respondents have disposable income to buy airtime and internet bundles.

4.6 The effectiveness of the Kalenjin dialects used by Kass FM

The respondents indicated that Kass FM uses a mix of various dialects to community their various shows depending on the presenter. However, the most predominant dialects are the Lembus, Samor, Nandi and Kipsigis. The Kass FM head of production mentioned that the presenters of the shows are often asked to communicate in conversational Kalenjin that can be understood by majority of the audiences despite their own ethnic backgrounds. However most of their radio presenters come from Nandi and the Kipsigis dialects. The producers noted that this is primarily because few individuals from the other Kalenjin dialects have pursued media related studies.

The extent to which the Tugen community at Perkerra Sub-location understood the dialects used in Kass FM are demonstrated in the table below.

Table 4.5: Table showing the extent to which the dialects used on Kass FM were understood

Extent of understanding	Frequency	Percentage %
Small	16	9%
Moderate	66	36%
Large	100	55%

N = 176

From the table above 55% of the respondents largely understand the dialects used. However, 9% of the population hardly understood what is communicated on Kass FM as a result of the language used. These particular individuals constituted of individuals who fall under Aror sub-dialects of the Tugen. The Aror sub-dialect is a unique group of Kalenjin who are more inclined to speaking Pokot and Turkana since they are neighbors.

4.7 New skills implemented by the community as a result of knowledge learnt from Kass FM

The respondents indicated that there were various skills that they had since implemented as a result of the information shared on Kass FM. These skills are demonstrated in the table below.

Table 4.6 Table showing the skills implemented by the community as a result of the knowledge learnt from Kass FM

Skill	Frequency	Percentage %
Water harvesting and irrigation	40	23
New crop varieties	64	36
Market intelligence	47	26
New machinery	25	15

N = 176

From the response above respondents indicated that new crop varieties are the leading skill that has been implemented by the community at 36%. This is because the implementation is not labor and capital intensive. Kass FM head of production also noted that when such information is disseminated physical location of where to find the products are also communicated. In addition they agricultural extension officers assist the community to implement incase of any challenge.

Secondly the respondents indicated that they have implemented information related to market intelligence at 26%. Market intelligence include activities such as how to find new markets for their produce, how to package their produce and how to cost them right. Consequently the farmers are protected from middle men who are likely to buy their produce at a throw away price.

Water harvesting and irrigation skills have implemented by 23% of the respondents while 15% have implemented new machinery. With the recurrent drought spells that occur after flood flashes Kass FM have been requesting prone communities to build reservoirs to harvest the water. This has enabled the community to conserve water thus reducing the effects of drought spells. Kass FM has achieved these by mobilizing the community leaders together with the community to participate in the noble task.

Introduction of new machinery has been the least skill that has been implemented. This is because its implementation is capital intensive therefore the community would rather have one person buy it then those who can afford can hire it for use. Some of the machinery that have been implemented include the money maker pumps.

In addition to these skills the respondents also suggested some of areas that they could like Kass FM to share more information on to promote food security in Perkerra sub-location. These skills are indicated in the table below.

Table 4.7 Table showing additional skills that the respondents would like Kass FM to give more information to promote food security

Activity	1	2	3	4	5
Cattle rearing	39%	32%	11%	7%	11%
Bee keeping	20%	23%	30%	16%	11%
Horticulture	2%	4%	20%	36%	39%
Food crop	2%	2%	27%	27%	42%

N = 176

From the response above the respondent are interested on having more information on food crop and horticulture with 42% and 39% respectively. The agricultural extension officers explain that it is caused by the lots of money that the community spends to buy food during food shortages. In addition the community would also like to increase their yield of horticultural products so as to compete with other horticulture producing markets such as Marakwet.

On the other hand the community is least interest with information on cattle rearing and bee keeping with 39% and 20% respectively. This is because the community perceives that they

are knowledgeable on how to rear cattle having practiced it over time. Although these activities have been practiced by the community for ages, there is need to start and sustain the conversation of increasing the yield from their cattle and bees. These can only be done when such ventures are looked at as business entities. However, these conversations can be built on when the community members continue to increase their scope through formal education.

4.8 Kass FM management team responses on the influence of Kass FM in the promotion of food security among the Tugen in Perkerra Sub-location

The researcher conducted an interview with the Head of production and the Head of Kass FM from Washington D.C. From the discussions the team revealed that Kass FM has played a major role in sensitizing the community towards ensuring that they are food secure. This the station has done in four ways. The first one is that, they have an in-house agricultural show which airs every Wednesday from 7:30 - 9:30 pm dubbed "Longet ab Kapatik" translated as the farmers shield. The show airs throughout the year with topic varying on the season that the farmers are experiencing or the current trends.

The second way that Kass FM has sensitized the community towards food security is by airing agricultural programs and segments that are sponsor-driven. These shows particularly are aired during peak seasons such as planting, harvesting or spraying season. These shows usually have a bias towards the sponsors' products as the listeners are asked to purchase their products. However, there are experts in studio who advises the farmers on wide range of activities. These shows are at times scheduled three times in a week from Tuesday to Thursday so as to accommodate various sponsors.

The third way that Kass FM uses to sensitize the community towards food security is by encouraging its listeners to have cohesion and peaceful coexistence with their neighbors or foreigners in the region. Discussions like these encourage farmers to hire out their parcels of

land that are not currently in use to those who can make use of it. From such programs the community benefits by vibrant economy. In addition these has helped foster business partnerships with other regions.

The fourth method Kass FM has used to enhance food security in arid and semi- arid areas is the 'Afrutation program' according to Dr. Sambu, Head of Kass FM Washington DC. The Afrutation program is a program that is currently being implemented in the larger Baringo County. The program involves planting drought resistant fruit trees in primary schools so as to encourage pupils to eat fruits thus boosting their nutritional needs.

The program involves agricultural experts training upcoming farmers to nurture drought resistant fruit seedlings for sale. The farmers then sell these seedlings to community leaders to be planted in schools. Secondly, the students are asked to plant the trees themselves thus they become conscious of the environment and encouraging them to plant more trees to improve the eco- system of the region toward a greener environment. The choice of using schools as an entry point is strategic so as to reach many families through their children. At the same time this would build a sense of community responsibility. With time the program is intended to spread across other counties in the region.

The Afrutation Program is spearheaded by Baringo County women representative Grace Kiptui. Though this program is mostly driven by on-ground activities, Kass FM is used as medium to fundraise to buy the seedlings as well as sensitize the community from abroad and those in the rural community on program

The program was formed to address the food security issues for the community living in arid and semi- arid areas. This is because in-house surveys conducted by Kass FM indicated that the in-house and sponsored agricultural programs targeted mass audience and addressed issues that affect farmers mostly in highland areas. In addition these shows have limited time on air since they have interludes of music and advertisements.

4.9 Agricultural officers responses on the influence of Kass FM in promoting food security among the Tugen in Perkerra sub-location

The agricultural officers during their interview sessions indicated that Kass FM has made positive impact in giving information to the community members. Through its agenda setting ability, Kass FM has been able to give any warning information that could benefit the community. Consequently this has made the work of the agricultural extension officers simpler since the community become more receptive.

Secondly, Kass FM has assisted the community to learn marketing skills thus enabling their produce to fetch more money. Despite the gains that Kass FM has made to promote food security the role of agricultural extension officers cannot be replaced. This is because the community regards them as opinion leaders. The agricultural extension officers also noted that Perkerra irrigation scheme has contributed to encouraging farmers practice farming by building their own canals.

4.10 The sub – chief response on the influence of Kass FM in the promotion of food security in Perkerra sub-location

The sub- chief in his responses indicated that Kass FM played a major role in informing the listeners on new farming techniques and directing them to institutions that they could get more assistance. Food security in the region has improved since the re-opening of PIS. However this at times becomes a challenge when the water levels in Perkerra River drop thus causing most farms not to have access to water. Nevertheless, food security has been improved by the presence of a national silo at Marigat town where government sells maize to farmers during the shortage. The biggest concerns during food shortages were that children become malnutrition due to a lack of the necessary nutrients. Secondly, horticulture has

created an opportunity for the jobless youth in the region to have sources of income. The flip side of it is that it has also encouraged school drop outs.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter focuses on the summary, conclusions and recommendations of the study. In addition it will also suggest areas of further study.

5.2 Summary of the study

The purpose of this study was to establish the influence of Kass FM in the promotion of food security among the Tugen in Perkerra Sub-location; Marigat division of Baringo County. The study was guided by three objectives which focused on the effectiveness of Kass FM in empowering the community towards food security, establishing the extent to which the dialects used were understood by the community and finally to find out the new skills that the community has implemented from the knowledge learnt.

The study embraced descriptive survey design and data was collected using interview guides.

The data was analyzed using SPSS and presented by use of graphs, charts and tables.

Through the data analysis, this study established that Kass FM has promoted food security in Perkerra sub-location through the content aired. This has been through its news segments, the agricultural program as well the Afrutation program. The study established that Kass FM gave farmers information about national policies and regional news that are likely to affect them. This information is then put into context so as to enhance understanding among the audiences. In addition, the community in Perkerra sub-location receives information on the market trends for their agricultural produce as well as the cost of food crops thus reducing the cost incurred to buy them. The Afrutation program has boosted the dietary intake among children thus subsidizing some of the dietary requirements that they would need to live healthily.

The community living at Perkerra sub-location had been able to implement skills such as water harvesting and irrigation, planting of new crop varieties, market intelligence and implementing new machinery as a result of the information that they have received from Kass FM. This study therefore affirms that vernacular radio stations such as Kass FM continue to play a key role in promoting development agendas such as food security.

5.3 Findings of the study

This study established that Kass FM educated, informed and entertained the community at Perkerra Sub-location. Through the content that they shared across their shows, the segments had interludes of music so as to keep the listeners concentration. With findings such as this, it means that vernacular radio stations are able to successfully drive the development agenda among audiences in the rural region.

The study also found that Kass FM uses a blend of various Kalenjin dialects as they communicate. These ensures that majority of the audience can understand what is communicated effectively. However, community members from the Aror sub-dialect could barely understand what was communicated on Kass FM.

The third finding of the study is that through the programs aired on Kass FM the community has learnt and implemented new skills such as the type of crops that would do well in drought resistant areas. They have also learnt how to harvest water during heavy rains and how to irrigate their farms. In addition the community has acquired new markets for their produce as well as learning how to market their products.

Underdevelopment and poverty were the two main issues that concerned the community in Perkerra Sub-location regarding food insecurity. These could lead to alienation of the region as well as dependency from other communities. Consequently, the community would lose their ability to make decision and set their own priorities.

Other findings of the study were, that the Afrutation program that Kass FM and the leaders of Baringo County had been successful on many fronts. The first, is that the program has enhanced community participation by allowing the community members to plant the seedling themselves and the children to plant the trees in school. As a result this has built ownership of the program thus guaranteeing its longevity. The second success of the Afrutation program is that it has created behavior change where the community is consciously planting trees. In the long run the environment will become greener and the community will be healthier due to the nutritional value from the fruits.

The presence of PIS has positively transformed the community living around it from a predominantly small scale, rain dependent farmers to large scale horticultural farmers. This is because the farmers in the region fetch more money through their horticultural produce as compared to their food crops. That way, the community can afford to buy food in case of food shortage from other markets that have a surplus. On the flip side, this has caused an increase in school drop-outs in the region. This is because at times the school going children are engaged in the family's economic activities and find that it rewards faster than having to wait for longer to join the labor markets in pursuit of a paid job.

5.4 Conclusions

Vernacular radio stations play a major in enhancing the development agenda for communities living in the rural areas. These radio stations expose the rural communities to national, regional and global issues that would be of interest to them. In addition it provides a platform where these development issues are put in a context that they would comprehend easily.

Communities are adequately informed and educated about new skills and technologies that would be of benefit to them through the content aired on vernacular radio station. Consequently, the community is able to collectively set their own goals and priorities thus ensuring that development projects have longevity. The community is able to mobilize resources towards particular objective. Moreover, innovations are faster diffused to the community through the use of vernacular radio.

5.5 Recommendations

Based on the findings of this study it is recommended that;

- i. Kass FM to appoint and work with a dedicated brand ambassador to address issues of food security across the Kalenjin community. This will streamline communication from one source and ensure that the radio station becomes top of mind among the viewers. The food security brand ambassador will facilitate discussion on-air and on the ground.
- ii. Kass FM to have a periodic review of the Afrutation program on air so as to ensure that the program remains relevant. In addition the community will be able to follow through the challenges and successes of the program and even implement it in other arid and semi areas.
- iii. Kass FM to have a campaign on air to sensitive the youth to pursue formal education with the aim of widening their scope and their creativity. However, emphasis should be placed on the youth turning the available resources into an income generating venture and not to depend on employment.
- iv. Kass FM to have a show hosted by an Aror speaking presenter or co-presenter so as to ensure inclusivity of the Aror community living in Marigat division to the various development agendas discussed on radio.

5.6 Suggestions further research

Out of this study, it could be recommended that, further studies can be done on:

- The impact that the school Afrutation program has had on the community in Baringo County.
- ii. The influence of vernacular radio station on promoting food security in a similar location that is arid and semi-arid and borders an Irrigation scheme to confirm whether the findings will be similar.
- **iii.** Further study should be done to access the impact that on-ground activation done by vernacular radio stations has had on the community.

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Appendix i: QUESTIONNAIRE-KASS FM MANAGEMENT TEAM

Introduction

I am a post graduate student at the University of Nairobi, pursuing a Master's degree in Communication Studies. I am conducting a study to investigate the *influence of Kass FM in the promotion of food security among the Tugen in Perkerra Sub-location; Marigat division of Baringo County*. The source of this information will be completely confidential and used for academic purposes.

1.Who are the target audience for Kass FM?
2. What is the structure of the Kass FM program line up?
3. What informs the timings of the various shows?
4. Are there any specific shows that seek to address food security in the region?
5. What is the structure of these shows?
6. How do you ensure that the information disseminated is relevant to the arid / semi-arid areas?
6. Which Kalenjin dialects are used to communicate on Kass FM?

7. How do these dialects blend so as to enhance understanding among the listeners?
8. Are there any new skills / knowledge disseminated to the audiences to promote food security?
9.How is skill / knowledge taught to the audiences?
10.How does the community participate in the learning process?

Thank you

Appendix ii: QUESTIONNAIRE – AGRICULTURAL EXTENSION OFFICER Introduction

I am a post graduate student at the University of Nairobi, pursuing a Master's degree in Communication Studies. I am conducting a study to investigate the Influence of Kass FM in promotion of food security among the Tugen in Perkerra Sub-location; Marigat division of Baringo County. The source of this information will be completely confidential and used for academic purposes. 1. How long have you worked in the area? 2. Which months is food shortage most rampant? 3. What are the causes of food insecurity in Perkerra Sub-location? 4. What measures are currently being taken by the community to avert food shortage? 5. How effective is the use of vernacular radio in promotion of food security? 6. How does one ensure that the information shared on radio relevant for Perkerra Sub-location?

6.Are there any new farming techniques that the community has adopted from the radio
programs?
7. How do you assist the community to implement the new techniques?

Appendix iii: INTERVIEW GUIDE

Introduction

I am a post graduate student at the University of Nairobi, pursuing a Masters degree in Communication Studies. I am conducting a study to establish the *influence of Kass FM in the promotion of food security among the Tugen in Perkerra Sub-location, Marigat division of Baringo County*. The source of this information will be completely confidential. Kindly give your opinion freely.

SECTION A: Background Information

1. Please indicate your gender? Male [] Female []
2. Do a have a household? Yes / No
If yes how many people are there? 1-4 members [] 5 – 10 members [] Above 10 members []
3. How long have you lived in Perkerra Sub-location? 0-4 years [] 5-10years [] over 10 years []
4. Which age bracket do you fall in? 18 - 25 yrs [] 25 - 35 yrs [] above 35 yrs []
5. What is your job occupation?
6. Which months are most affected by food shortage in Perkerra Sub- location?

SECTION B:

7. Indicate the extent to which the following factor concern you the most regarding food security Use the scale of: 1= Very small extent 2=Small extent 3= moderate Extent 4= Large extent 5= to A very large extent

Factor	1	2	3	4	5
Insecurity					
Underdevelopment					
Migration					
Death of community members					
Poverty					
School drop-outs					

8. Do you listen to Kass FM? Yes / No

If yes, please indicate the extent to which you consider the following programs on radio as some of the methods of training that Kass FM uses to educate the community on food security

Use the scale of: Use the scale of: 1= Very small extent 2=Small extent 3= moderate exsstent 4= Large extent 5= To A very large extent

Factor	1	2	3	4	5
Regional news					
Business news					
National news					
Features					
Agricultural programs					
Tutorial					

9. Kindly state any other program aired on Kass FM has been used to educate the community on food security
······································
10. Is the information shared on Kass FM relevant to Perkerra Sub location? How
11. Which feedback mechanisms does Kass FM put in place for the listeners? Call-ins () SMS () Social media () Any other
·
12. Which Kalenjin dialects is often used during the agricultural programs?
13. To what extent to you understand what is communicated?
Small extent () Moderate extent () Large extent ()
14. Are there any new skills you have learnt from Kass FM with regard to promoting food security?
If yes, state which skills these are
15. Has the community implemented the new skills? Yes / No
Why

16. Which areas you would like to have more emphasis on to promote food security in Perkerra Sub-location

Areas	1	2	3	4	5
Cattle Rearing					
Bee keeping					
Horticulture					
Food crop production					

Any other	
T	Thank you

Appendix iv: INTERVIEW GUIDE – CIVIC LEADER Introduction

I am a post graduate student at the University of Nairobi, pursuing a Master's degree in Communication Studies. I am conducting a study to investigate the Influence of Kass FM in the promotion of food security among the Tugen in Perkerra Sub-location; Marigat Division of Baringo County. The source of this information will be completely confidential. Kindly give your opinion freely. 1. How long have you worked in the region? 2. How often does food shortage occur in Perkerra Sub location? 3. Which months are most affected by food shortage? 4. What are some of the factors that contribute to food insecurity in the region? 5. What are the issues that arise as a result of food shortage in the region? 6. What remedies has the community put in place to enhace food security?

7. Which radio station does the community listen to?

Why?
8. Which Kalenjin dialects are found in Perkerra Sub-location?
9.How do the members of this dialects communicate with each other?
10. What economic activities do the people of Pekerra Sub- location participate in?
12.Are there any new farming techniques that the community has adopted from the radio
programs?
7. How do you assist the community to implement the new techniques?

Thank you.



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Mokaya Davis Man 12/10/2018
SUPERVISOR SIGNATURE DATE
De Zaruna zaria, Desura, 15/10/50/2
PROGRAMME COORDINATOR SIGNATURE DATE
Dr. Neen Noah am 12.10-2015
DIRECTOR SIGNATURE/STAMP DATE