

**REGIONAL RADIO FARMING PROGRAMMES AND AGRICULTURAL PRODUCTIVITY
IN KIMILILI CONSTITUENCY: CASE STUDY OF WEST FM RADIO STATION**

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DECLARATION

I, the undersigned, declare that this project is my original work and that it has not been presented in any other university or institution for academic credit.

Signature.....

Date.....

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This project has been submitted for examination with my approval as university supervisor.

Signature.....

Date.....

Hezron Mogambi, PhD

Supervisor

DEDICATION

I dedicate this work to my family and friends for their love and support towards my research project writing.

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ABBREVIATIONS/ACRONYMS

KARF:	KENYA AUDIENCE RESEARCH FOUNDATION
PRC:	PARTICIPATORY RADIO CAMPAIGN
AFRRI:	AFRICAN FARM RADIO RESEARCH INITIATIVE
ERA:	ECONOMIC REVIEW OF AGRICULTURE
GOK:	GOVERNMENT OF KENYA
KTN:	KENYA TELEVISION NETWORK
KBC:	KENYA BRADCASTING CORPORATION
UNCDR:	UNITED NATION CENTRE FOR REGIONAL DEVELOPMENT
CEES:	UNIVERSITY OF NAIROBI COLLEGE OF EDUCATION AND EXTERNAL STUDIES
IDRC:	INTERNATIONAL DEVELOPMENT RESEARCH CENTRE

TABLE OF CONTENTS

DECLARATION.....	ii
DEDICATION.....	iii
TABLE OF CONTENTS.....	vi
ABSTRACT.....	ix
CHAPTER ONE.....	1
INTRODUCTION.....	1
1.1 Overview.....	1
1.2 Background of the Study.....	1
1.3 Statement of the Problem.....	5
1.4 Objectives of the Study.....	6
1.5 Research Questions.....	7
1.6 Rationale and justification of the Study.....	7
1.7 Scope and Limitation.....	8
1.8 Operational Definition of Terms.....	9
CHAPTER TWO.....	10
LITERATURE REVIEW AND THEORETICAL FRAMEWORK.....	10
2.1 Overview.....	10
2.2 The role of Radio in national development.....	11
2.3 Radio and development impacts in Africa.....	11
2.4 Use of Radio to communicate agricultural information.....	12
2.4 Contribution of Radio to agricultural productivity in Kenya.....	14
2.5 Changes and Developments in the Radio sector in Kenya.....	17
2.6 Radio listenership in Kenya.....	18
2.7 Community participation in broadcast.....	20
2.8 Utilization of Radio Messages.....	21
2.9 Theoretical Framework.....	24
2.9.1 Agenda setting theory.....	24
2.9.2 Uses and gratification theory.....	25
CHAPTER THREE.....	27
METHODOLOGY.....	27
3.0 Overview.....	27

3.1 Descriptive Research design	27
3.2 Research approach	27
3.3 Target population	27
3.4 Sampling procedure and Sample size	28
3.5 Research Instruments	29
3.5.1 Questionnaire	29
3.5.2 Interview Guides	30
3.6 Ethical Considerations	30
CHAPTER FOUR.....	31
DATA PRESENTATION, ANALYSIS AND INTERPRETATION	31
4.1 Overview	31
4.2 Questionnaire Return Rate	31
4.3. Age of the Respondents	32
4.4 Gender of the Respondents	33
4.5 Level of Education	34
4.6 Farm size	35
4.7 Type of Farming	36
4.8 Purpose of Farming.....	37
4.9 Income Changes.....	38
4.10 Increase in Agricultural Produce	39
4.11 Favorite Radio Station	40
4.12 Lessons learnt from <i>Ukulima ajira</i> and other Agricultural programs on West FM	41
4.13 West FM Programs	43
4.14 Impact of the <i>Ukulima Ajira</i> program on the audience.....	44
4.15. Listeners of the Agricultural Programs.....	44
4.16 Time Allocated for Agricultural Program on Air	45
4:17 Participation in the West FM Programs.....	46
4.18 How <i>Ukulima Ajira</i> has benefitted the farmers	47
4.19 Effective communication methods between the Extension workers and Farmers	49
4.20 Improvement of farming standards in the area	49
4.21 Promotion of Farming by <i>Ukulima Ajira</i> program	49
4.22 Conclusion	50
CHAPTER FIVE	52

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.....	52
5.1 Overview.....	52
5.2 Summary of the Findings.....	52
5.3 Conclusion	54
5.4 Recommendations.....	55
REFERENCES	56
INTRODUCTION LETTER	59
APPENDIX II.....	60
West FM Radio Station Audience Questionnaire.....	60
APPENDIX III.....	63
In-depth interview questions for West FM Programme managers	63
APPENDIX IV.....	64
In-depth interview questions for Agricultural Extension officers in Kimilili Constituency	64

LIST OF TABLES

Table 3.1: Sampling procedure and Sample size	29
Table 4.1 Age of the Respondents	32
Table 4.2 : Gender of the Respondents.....	33
Table 4.3: Farm size.....	35
Table 4.4: Type of farming	36
Table 4.5: Purpose for Farming	37
Table 4.6: Income Changes.....	38
Table 4.7: Increased Agricultural Produce	39
Table 4.8: Favorite Radio Station.....	40
Table 4.9: Lessons learnt from Ukulima ajira and other Agricultural programs on West FM.....	42
Table 4.10: West FM Programs	43
Table 4.11:Listeners of Agricultural Programs	45
Table 4.12: Frequency of agricultural Programs Sufficient.....	46
Table 4.13: Participation in the West FM programs.....	47
Table 4.14: How Ukulima Ajira has benefitted the farmers	48

ABSTRACT

The main aim of this study was to assess the impact of regional radio farming programmes on agricultural productivity in Kimilili constituency using West FM radio station as the case study. The study's objectives were to establish whether the people of Kimilili Constituency used West FM as a source of information and to determine whether *ukulima ajira* program on West FM had influenced diversity in farming among farmers in Kimilili constituency. A mixed methods approach was used as it involved collection of both qualitative and quantitative data. The study adopted purposive sampling technique to identify the respondents of the study. The research chose a sample of two hundred and two (202) farmers, which was considered to be statistically significant considering the size of the total population of adults who meet the above description. This study relied on primary data generated in the field by way of administering questionnaires with open and close-ended questions to the farmers and interview guides to the West FM program managers and extension officers. Data obtained through the questionnaires was coded and analyzed through the SPSS package. From the analyzed data, tables were prepared and used in interpretation. The research findings revealed that the program is popular in the constituency. Farmers sampled for the study expressed positive views on the role that regional radio farming programs like *Ukulima Ajira* have played in enhancing their farming activities. The researcher recommends that the radio station invests more in the agricultural programmes and should also consider building partnerships with farming institutions within Kimilili Constituency to come up with incentives that can benefit the farmers.

CHAPTER ONE

INTRODUCTION

1.1 Overview

This chapter lays the background to the study. It comprises of the introduction, background to the study, statement of the problem, the objectives, and research questions, justification of the study and limitations of the study.

1.2 Background of the Study

Mass media tools are vital in communication; they have been instrumental in informing the masses about developments taking place in the world, influenced changes and aided democratization at their home fronts and revolutionized humanity. Traditional mass median channels that include radio, television and newspapers continue to be relevant particularly in most of Africa where new technology has been slow in taking root. New developments in technology have not obliterated traditional forms of mass media.

Radio preference as a mass medium is attributed to its unique characteristics that —allow the owners to expand the spectrum beyond urban areas avoid economic barriers to consumers paused by high priced newspaper or TV subscriptions. The oral nature of radio and its ability to employ native languages enables the medium to reach the critical rural population, which in Kenya is about 80%. Radio is also preferred for its portability, affordability, simplicity, and flexibility to the user.

Conby (2010) states that when radio emerged in Britain, the telegraphy acts of 1868 and 1904 put control of the emerging technology of radio under post office and therefore government. Its main objective was to develop a higher sense of national community as an enlightened and informed public. It aimed at informing, instructing and entertaining responsibilities that it still holds up to today.

According to Pavindrath (2014) the role of mass media is to inform, educate, entertain and persuade. Correctly used, radio has power to transform society in a very short time. Radio has an added advantage over other media because it can reach the illiterate unlike print media. However he notes that the presenter has a challenging task of convincing the audience to accept the new change he is advocating for and to implement it.

Regional radio is any radio station that broadcasts in a specific geographical area and set up to serve a particular locality. The station may broadcast either in a country's national languages or the local language depending with the target audience. In Kenya, the two recognized national languages are English and Kiswahili. It may in most cases be may be community in nature whereby it is set up and managed by the community often not on a profit basis or it orients a commercial station often relying on advertising revenue and entertainment. In both cases a local station will cover a smaller geographic area and will invariably broadcast on FM.

Regional radio preceded community radio and was known as the voice of the peasants as groups of farmers or villagers met in each other's homes to listen to radio discussions that touched on their issues or problems. Kumar (2004) identified radio as an avenue for participatory communication as a tool relevant in both economic and social development.

Kenyan constitution states that the state shall facilitate and encourage public awareness and participation in decision making by ensuring information is widely available. This principle is important since it provides a direct link between sustainable development, media and democracy. Vernacular radio stations are capable of being the conduits through which information can reach the people and have an impact on promoting practices that are sustainable. (Maloba 2013)

West FM radio station, which is a regional station in Bungoma County in Western Kenya, broadcasts in both Kiswahili and Lubukusu languages. Its content includes; news bulletin, agricultural programs, health programs, interactive talk shows and entertainment. The station is under West Media Limited and owned by three partners namely; Ambassador Dr. George Masafu, Dr. Philip Muyoti and Mr. Cyprian Wekesa. The station is popular especially with the rural populace since it offers an access to entertainment and information on various issues. Though there are other stations that offer broadcasts in Lubukusu language, West FM stands out as it also broadcasts in Kiswahili so as to cater for the audience that is not proficient in Bukusu language. The

audience is also given a chance to call in, so as to express views and opinions in an interactive manner.

Agriculture is a fundamental instrument for sustainable development, enhanced food security and poverty reduction in developing countries. Kenya vision 2030 does identify Agriculture as one of the six key economic sectors expected to drive the economy to a projected 10% growth annually over the next two decades (Mary Nzomo, 2014). This therefore means that agriculture is essential for the achievement of vision 2030 goal which will be realized partly by modern agriculture that is innovative and commercially oriented.

Most people in Kenya live in rural areas and are engaged in subsistence Agriculture as their principle livelihood, (Economic Review of Agriculture, 2012). The 2009 Kenya Population Census report indicates that 80% of the Kenyan population is currently engaged in agriculture and relies on it for sustainability.

While agriculture is a vital pillar for sustainable development and poverty reduction in Kenya, it continues to face challenges and emerging constraints at the global, regional and national levels that require urgent and special attention, (GOK, 2008).

Agriculture is the major economic activity in the Constituency with 70% depending directly or indirectly on farming. Farmers plant food crops like, beans, sorghum, maize, bananas, sweet potatoes, cassava, groundnuts, vegetables, fruits, coffee, tobacco and also rear animals like cattle, sheep, goats and rabbits. (Broesch, T 2004)

Climate in Kimilili Constituency favors agriculture as temperature ranges between 15 degrees and with upper maximum of 30 degrees centigrade and average rainfall of 1500mm per annum (Mary Nzomo, 2014). According to Muyanga et al., (2005) food security situation and especially maize production and distribution as Kenya's staple food has of late been declining. Wokabi (2000) purports that there have been no adequate interventions to develop maize crop value chain with at production, processing and distribution. Many farmers sell their produce more so maize immediately after harvesting them and end up purchasing them later when they run out of stock. Agriculture, apart from providing food security to the population, is also a source of livelihood to most of the population in the constituency.

1.3 Statement of the Problem

While agriculture is a vital pillar for sustainable development and poverty reduction in Kenya, it continues to face challenges especially at the regional or rural areas. Production is compromised due to volatile markets, low adaptation of improved technologies, limited access to markets and lack of knowledge among farmers. Adoption of pesticides, fertilizers and improved seeds and practices are only recently gaining momentum. Many farmers sell their produce more so maize immediately after harvesting them and end up purchasing them later when they run out of stock.

Despite the fact that each Ward in Kimilili constituency has agricultural extension

officers, it is imperative to note that they cannot reach everyone and may not have suitable forums to speak to the masses and to hold participatory discussions where the farmers can share their ideas and discuss their concerns. Even with the emergence of new technology like mobile phones, it is still not easy to reach out to all the farmers, as some of them do not own phones.

The challenge therefore facing farmers and the government in achieving the goal centrally lies in communication as a denominator to cause change. This therefore demands a communication approach that targets and also involves the targeted community. One such approach is regional radio. It is upon this background that this study sought to establish whether there is a relationship between regional radio listenership and agricultural productivity. In this study we assessed West FM radio farming programmes and agricultural productivity in Kimilili constituency and whether the medium is effective in communicating to the farmers on issues of agricultural development.

1.4 Objectives of the Study

The following were the objectives of this research study:

- i. To find out the extent to which Kimilili constituency residents use *Ukulima Ajira* program on West FM radio as a source of information for farming
- ii. To investigate how *ukulima ajira* program has impacted on farming habits among farmers in Kimilili Constituency
- iii. To investigate the extent to which *ukulima ajira* program has changed the farmers'

development actions and participation in farming.

1.5 Research Questions

- i. Is *Ukulima Ajira* a source of information for the people of Kimilili Constituency?
- ii. How has *Ukulima ajira program* impacted on farming habits among farmers in Kimilili constituency?
- iii. To what extent has agricultural programs like *ukulima ajira* changed the farmers' development actions and participation in Kimilili constituency?

1.6 Rationale and justification of the Study

This study will evaluate the impact of radio on agricultural productivity. Based on the findings, I will be able to establish whether regional radio stations have an impact on development in this case of agricultural productivity.

I will also come up with recommendations on the same. The recommendations will help the West FM radio station in establishing whether the developmental programmes on farming like *Kilimo Ajira* are achieving their objective of having a positive impact on agricultural productivity in Kimilili constituency. The government in this case the Ministry of Agriculture Bungoma County will be able to understand whether use of regional radio for communication especially to farmers is effective. This study will also assist other radio stations to adopt developmental programs, as they will realize that they are more beneficial and educational unlike the traditional formats that often fuel conflict with no educational value at the end of the day. Non-governmental organizations will

also get a chance to sell their development agendas especially on farming to a larger population. This will lead to sufficiency in terms of outreach to the Kenyan population and extension to other parts of the continent and world as a whole as the station can be streamed online. Lastly, other researchers who have an interest in this field will find this document useful and can use it as a secondary source for their data.

1.7 Scope and Limitation

The study was conducted in Kimilili Constituency in Bungoma County where farmers from the area and programme producers of West FM radio station were used as respondents. West FM radio was identified as the case study because an analysis of their agricultural programmes was done. This study was carried out in a period of one week between 19th and 25th September 2016 in the four wards (Kamukuywa, Maeni, Kimilili and Kibingei) of Kimilili constituency in Bungoma county.

The limitation experienced during the study was that some farmers were reluctant to provide information or cooperate with us for fear of not being sure as to why the study is being done. A letter of introduction from the University was used to overcome the limitation. We explained that the study was for academic purposes and would therefore be treated with confidentiality. The issue of illiteracy was also a limitation to the study. We overcame this challenge by assisting those who were unable to read and write by reading and translating the questions in Kiswahili and Bukusu languages so that they could understand. We also assisted them in filling the questionnaires.

1.8 Operational Definition of Terms

Regional Radio: Is any radio station that broadcasts in a specific geographical area and set up to serve a particular locality. The station may broadcast either in a country's national languages or the local language depending with the target audience.

Community: There are various definitions of community. For purposes of this study, community is a group of people whoshare common ancestry, culture, traditions and language

Local language: Local languages spoken as the native language of different ethnic communities in Kenya. It may also include the official national language Kiswahili

Participation: Sharing of information, by providing a platform for debate, analysis and exchange of ideas and opinions among members of a particular community

Rural audiences: People living in rural areas and listen to local language radio station

Development Communication: Any organized efforts to use communications processes and media such as Local Language Radio to bring about social and economic improvements of a target population

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Overview

This chapter deliberates literature that relates to this study and the theoretical frameworks. The literature review is divided into eight sections.

In any country, it's imperative that its citizens access information on different issues that are of relevance to them so that they can be able to make decisions objectively (Deane, 2006). Ability to have access to information also does enable the public to take part in discussing issues that affect them directly or that are of importance and beneficial to them. In Kenya the first radio stations to go on air broadcast in English and Kiswahili. The state owned Kenya Broadcasting Corporation (KBC) was the only station on air and it wasn't until 1992 that a commercial station Kenya Television Network (KTN) under the standard media group emerged. Broadcasting in Kenya for a good number of years was restricted to only two official languages that is English and Kiswahili. This had implications as it locked out majority of the Kenyan population especially those in the rural areas who could not comprehend either English or Kiswahili. This was a major achievement, as more stations including vernacular emerged leading to access to information by more people including those in the rural areas who were initially not able to understand either Kiswahili or English.

2.2 The role of Radio in national development

Many development-oriented communicators have pointed that radio is the medium that can reach a wide audience even in the poorest rural settings (Okigbo, 1995). Accessibility to radio among the rural poor in terms of financing is affordable, making the medium a source of information for many people (Buckley et al, 2008; Hatzold et al., 2014).

Radio is a popular medium to rural residents; most of who have limited access to other media forms such as newspapers and the television (Mogambi, 2011).

In communication for development Round table report (UNCDR), 2010), radio still remains the most widely available and affordable mass medium for disadvantaged groups in the rural areas as it is often the only one available. It reaches a large number of isolated populations over a wider geographical area. It is further indicated in the report that in some rural areas it is the only source of information about the weather, market prices and agricultural innovations.

It is also an inexpensive medium that uses a simple technology and is therefore more suitable for the less educated living in communities and societies more characterized by oral and folk traditions.

2.3 Radio and development impacts in Africa

Radio as a medium has had several successes in development. In Ghana, a study by Al-Hassan et al (2013) to assess the role of radio Simli towards the improvement of the

livelihood of people. It was found that the station did indeed improve people's awareness creation by addressing community problems ranging from agriculture to rural development and local governance.

A research study done for a mobilization campaign for Kagadi- Kabaale community in radio Uganda in 1994, had villagers report that although they had access to national radio, most of them felt cut off from the basic information they needed, even information that was available within their region.

2.4 Use of Radio to communicate agricultural information

In 1980, before rural radio became a common phenomenon, McAnany (1980,) complained that a two way communication system often missing entirely in rural areas, could keep field personnel in touch with the organizers. Every activity considered vital to rural development is information dependent in some way. In the third world, the agents are in short supply and can only reach a fraction of the farmers, yet there may be other ways like mass media of disseminating the same message to the farmers. A better mix of material and information sources would yield better results. If radio became available to the rural people, it could make it easy to communicate with them and have them participate in development. Since radio has become more accessible in Africa, radio should now play a bigger role in communicating to the masses (McAnany, E.1980.) Since radio has become available to most citizens of Africa, probably McAnany's desire for an informed audience in Africa has become true.

Chapman (2003) concurs by noting that remote rural farming communities can use rural radio to improve the sharing of agricultural information. Participatory communication techniques can support agricultural extension efforts especially using local languages and rural radio to communicate with farmers directly. (Chapman, R.2003:10)

Arpita (2011) argues that since regional radio is confined to a small geographical area, it serves a community, which uses common resources for livelihood. Such a community has common development issues and concerns, which are relatively localized, although connected to national and regional development goals therefore community radio connects the hard-to-reach rural audiences and serves a specific purpose of community radio that national or international mass media cannot deal with. (Arpita, S. 2011). From the above arguments, it is clear that radio if well used, can play an essential role in reaching the small-scale farmers with vital information that can transform their lives and their economic activities in a positive manner.

Mogambi (2016) states that radio in particular has proved to be a sustainable and interactive medium for poor and marginalized populations to be heard and informed, shape knowledgeable opinions, learn the give-and-take of informed dialogue, and become more decisive agents in their own development.

Fisher 1990 explains that early development communication theorists believed that mere exposure to radio messages was enough to cause social change that would lead to development. This belief led to the launch of many development projects. In the earlier farm forum programs, messages were primarily sent “down” from the government

agricultural department or the extension agent to the rural people. Very limited feedback was expected from the farmers: the messages were often too complex, technical and descriptive to be understood. It was difficult for the farmers to understand the message and this discouraged them from adapting it. These early schemes clearly revealed the limitations of “top down” government campaigns designed to foster development. For radio to be more effective in communicating, it has to adopt a two way communication whereby the recipients are also allowed to air their views and ask for clarification. (Fisher 1990) This argument posits a need for the program producers to be careful with the formation of the programs so as to make sure that they are easy to understand and that during dissemination, they provide for adequate feedback from the audience.

2.4 Contribution of Radio to agricultural productivity in Kenya

(Myers, M. 2008) In 1989, Ms. Mary Ngechu a radio lecturer from the University of Nairobi’s college of education and external studies (CEES), came up with the idea of developing agricultural programs on radio in order to reach small scale farmers in Kenya who had been excluded from service within the traditional extension system. She requested IDRC to fund this project. It was agreed that she do a feasibility study to see how useful radio is in information dissemination before funding. The results of the study were informative (Ngechu, 1991). The findings showed that radio was the most widely used information resource in the areas of rural Kenya where she studied. This therefore proved that radio, as a medium is reliable in terms of communication for development. The respondents said that they previously relied on word of mouth from neighbors regarding different agricultural techniques. Of the 216 interviewees in the sample, none

had ever had an extension officer visit his/her farm. They also said that it would be important that an agricultural extension officer or expert be present when listening to the agricultural programs so that in case of clarifications and queries, he would be able to offer responses as call-ins were difficult at the time due to lack of mobile handsets.

Myers M, (2008) Important to note from this study is that beyond the interviewee's enthusiasm for a two-way communication with the radio, was the fact that female members in the households had far less access to and little if any control of the radio medium (Ngechu, 1992). Because women constitute by far the greatest percentage of the practicing smallholder farmers in Kenya (more than 70% according to Ngechu's research) and since they are effectively excluded from obtaining information from the male-dominated extension system by the cultural practices of the tribal system, women's current problem of access to information resources is acute. On the strength of the information gathered in the feasibility study, the IDRC has now funded a major pilot study of the use of radio listening groups to improve farmer adoption of development information. The intent of this study to determine whether radio can be democratized in Kenya the same way it has been in Zimbabwe. Creating a dialogue between the radio producers and listeners will make it easier for the producers to schedule their programmes according to the likes of their audience. It is therefore important to note that a two way communication between an audience and the radio station can lead to achievement of goals of different agendas more so on issues of development like agriculture.

A study conducted in Siaya County by Anduvate (2014) on the role of Sauti FM community radio on rural development, found out that rural communities in Kenya have been relegated to the periphery of the regular mainstream socio-economic and political development discourses. The study did establish that their voices remained muted and their core political and socio-economic concerns have been largely excluded from the core resource planning and allocation processes. Radio offered a platform for solving this situation as it was widely regarded as ideal media for development communication. In this vein Sauti FM was identified to be a major contributor to the promotion of local culture, education, health and agricultural issues, etc. in Kenya.

In a study conducted by Ochichi (2014) on the assessment of local radio in the context of rural development in Kenya, it was established that local radio in Kenya had made a moderate contribution in rural development and facilitated the process of development information.

Therefore, development news and features should cover issues that are relevant to the social and economic changes and includes topics on agriculture, health, sports family planning and education. Each of which, deals directly or indirectly with human problem, success, sorrow, joy, or similar human factors. His study on the rural press in Kenya shows that it doesn't adequately cater for all its audiences, and that some audiences would prefer more materials, while others prefer certain items to others. In addition, the study showed that this press gave top priority to agriculture, local news, social issues education among others, but strangely enough, other development oriented issues such as

health and community projects had a low rating.

Kimutai (2011) noted that in Kenya, radio broadcasts are still the preferred media. A study commissioned by the Kenya Audience Research Foundation (KARF, 2011), and conducted by Synovate, reported that radio listening leads in media consumption or utilization. The mobile phone, television, newspapers, and the Internet follow it respectively. The study carried out on a population sample of 8504 showed that 93% of the sample had listened to a radio programme in the last seven days. Furthermore, about 54% of Kenyans are listening to more than one radio station. The average time spent listening to radio programs per day is six hours. This multi-channel trend is attributed to the growth and development of FM radio stations in Kenya that offer different genres of content that range from music to talk shows etc.

2.5 Changes and Developments in the Radio sector in Kenya

There has been a notable increase in number of radio stations in Kenya since 2000. The new political dispensation after the Moi era was a key factor in the rise of independent media in Kenya since 2002 (BBC WST 2008). Abdi and Deane (2008) attribute the media boom in Kenya also to a dynamic economy with one of the most dynamic economic advertising markets on the continent and a population that consumes news and information voraciously.

According to the Communications Authority of Kenya there are currently about 132 radio stations on air. Local language radio stations have also significantly grown after the

licensing of the first one Kameme FM in 2000. Currently there are 47 local language stations on air in Kenya (Communications Authority of Kenya, 2016). These stations include; Ramogi FM (Luo), Inooro FM (Kikuyu), Coro FM (Kikuyu), Kass (Kalenjin), Mulembe (Luhya) among others. Eleven are run by Royal Media Services (RMS), a privately owned media group; Kenya Broadcasting Corporation (KBC), a public broadcaster, runs five stations nationally and other seven regionally. The stations are especially popular in rural areas with the majority of listeners being over 30 years.

2.6 Radio listenership in Kenya

In Kenya, agenda 21, article 37 in Kenya's constitution emphasizes education for all needs to be assured as a crucial factor associated with policy development. The mass media especially the radio is seen as the most cost effective way of providing information to a population including the marginalized sections. The media has an important role in acting as a watchdog, encouraging people to make changes towards sustainability and influencing public opinion.

Maloba (2013) argues that the media including the radio in an information society has a role of informing the general public of policies, current affairs and national development especially if such issues affected them directly. For the farmer, it should provide information about latest innovation and most effective farming methods. It also has to give the public the ability to make their voice heard. The media is seen as a vital two-way tool, providing information from the top to the masses at the grass roots and allowing their views, ideas and opinions to filter back to policy makers. (Maloba, B. 2013)

Ngechu and Peter (2002) carried out a longitudinal study to identify factors that influence farmer adoption of agricultural, health knowledge and skills. Participants were organized in three categories: women only, men only and mixed groups of men and women. They listened to radio programs in their separate groups. The idea of radio listening groups (RLGS) is not new. It had been practiced in Canada and Britain during 1920s. They discovered that radio message which was useful to the farmer was adopted and implemented. (Ngechu, M. E & Peter, W. O 2002)

Maloba (2013) carried out a research on sustainable development through communication. He used Mulembe FM as his research radio station. The main objective of his study was to find out whether Mulembe FM broadcasts offer any programs on environmental sustainability development and if they do, if the programs have any impact on the audience in promoting practices that would ensure a sustainable environment for the future generation. The data generated from this study demonstrated the potential of radio broadcasting as a high efficiency / low cost means to meet development. (Maloba, B. 2013)

Maloba's (2013) findings demonstrated the power of radio and proved that radio programs have power and ability to transform communities. If through radio programs on Mulembe FM, messages on environment sustainability reached the targeted audience and led to positive change, we can therefore expect radio agricultural programs on the same radio station to strongly influence farmers' decisions.

2.7 Community participation in broadcast

Two tenets of radio are representation and participation. Unlike the mainstream radio stations, regional radio should ensure that the content produced is specifically tailored to meet the needs of the specific community that they are targeting.

Jallov (2012), Mogambi (2011) postulate that use of local language at times promotes empowerment and participation of community members in the production of programmes. This therefore means that the power of words is central to maintain and strengthen other kinds of domination and power. Empowerment communication intends to be a step towards a development that gives control over their own lives to the very people who have traditionally been made passive or partially active, recipients of those efforts by those in charge of development policies. While still within the boundaries of the current paradigm empowerment communication also advocates its demolition basing it on the genuine application of demographic ideals which should pay more attention to the universal human rights regardless of other factors e.g. nationality, socio-economic status etc.

Subba et al (2007) points out an area of major concern 'elite capture' of station ownership and programming decision making and a journalist rather than community driven orientation that adversely affects community representation in relation to content and whose voices are heard resulting in competition among broadcasters. Competition among broadcasters has a negative impact on programming with an increased volume of syndicated content that lacks contextual relevance to the community or target audience.

This is a clear indication that the content is not representative of what the audience wants to hear.

2.8 Utilization of Radio Messages

A study conducted by Karmebäckon harvest loss in the neighboring villages of Munyuki and Mukuyu village, aimed at identifying the reasons why farmers lose their crop after all the hard labor in the process of production. The study was carried out between January and February 2013. Its aim was to establish the reasons behind losses of food after harvesting in Mukuyu and Munyuki villages in Lugari County in Western Kenya. (Karmeback V. 2013).

Some of the reasons for harvest loss she identified include heavy rains during harvest season that destroy the crop, lack of funds for constructing proper storage facilities, lack of knowledge of proper storage of produce and lack of ready market for the perishable goods (Karmeback, V. 2013). She was able to identify the reasons for food loss while our study seeks to find out whether mass media through research and through agricultural and weather experts have been able to find and provide a lasting solution. This study would like to find out how media has been effective in addressing some of these issues identified above.

Okwu, Kuku and Aba (2007) in a study that did investigate use of radio as a medium for agricultural information delivery to farmers in Benue State in Nigeria. The study found a high level of listenership to the programs. The study found that 66% of the respondents

listened to the agricultural programs aired on Radio Benue and 42% of the listeners indicated that they listened to the radio because of the content aired. They indicated that the programs were relevant to their agricultural informational needs and that is why they listened to the programs. This therefore means that most people listen to radio programs because of the content that the stations are offering.

Wekulo (2013) carried out a research on the relation between agricultural knowledge and information system in adoption. The study carried out in Lugari sub County, sought to find out whether the available communication tools had been helpful in disseminating information on amaranth production, a new crop that was being introduced in the area. The research concluded that radio programs played an important part in informing the farmers about the product, but it is interpersonal communication, which played a major role.

The Kenya Agricultural Research Institute (2009) newsletter, suggested that Farmer Voice Radio Audience does a survey in 2009 to examine radio listening habits, radio accessibility, and listenership preferences of small farmers in Kenya. The findings of the research showed that 98% of farmers have access to a radio message from various audio technologies. The study also found two key factors that contribute to radio listenership. They were language of communication and content. Farmers prefer listening to relevant, interesting and diverse programs in their mother tongue. Programs with the highest listenership include the news, sports, and politics. Farmers also listen to agricultural

programs, but they feel that these programs are often centred more on farm inputs than their needs and preferences (Kenya Agricultural Research Institute, 2009).

A study by farm international conducted in 2011, the African Farm Radio Research Initiative (AFRRI 2011) and funded by the Bill and Melinda Gates Foundation was conducted in five African countries namely Mali, Uganda, Tanzania Ghana and Malawi. The study's aim was to identify best practices in farming using radio. Data from the above research revealed that AFRRI Programs did have a positive impact on farmers. Significant changes were noted by in communities that had participated in the study.

A study carried out by Teran, A. Tiani, A. Merline, T. & Tchatchou, B. (2015) in Congo on the impact of radio programs on Climate change knowledge is very important to our research. The main objective of the program was to provide policies, practices and concepts that are respond to climate change. The study's main am was to provide a platform for policy makers and local practitioners could exchange ideas and knowledge in the local languages in order for the local communities to comprehend. Results from the study showed increased knowledge on climate change issues. The sample group indicated that their knowledge on the topic had increased by 36%, which is more than the group sampled for questions related to forestry. (Teran, A. Tiani, A. Merline, T. & Tchatchou, B. 2015)

2.9 Theoretical Framework

2.9.1 Agenda setting theory

Dr. Max McCombs and Dr. Donald Shaw developed the Agenda setting theory in a study on the 1968 presidential elections. In the 1968 Chapel Hill study, Shaw and McCombs demonstrated a connection between what 100 residents of Chapel Hill in North Carolina thought was the most important election issue and what the local and national news media reported was the most important. (McCombs, Shaw, 1972). By comparing the prominence of issues in news with the public's perceptions of the most important election issue. From this McCombs and Shaw were able to determine the degree to which media determines public opinion. The two criticisms underlying most of the research under the agenda setting theory are; -the media does not reflect reality they instead shape and filter it and media concentration on a few issues and subjects does lead the public to consider those issues to be more important than others.

Agenda setting theory helps us understand the pervasive role of the media. It is applicable in this study as radio is a strong medium of communication that easily influences people's decisions and choices and also does structure public debates. It matters what a radio station especially one broadcasting to a specific locality brings to the fore for the community to think about. In light of the aforementioned, radio stations should be able to bring out pertinent issues to the light and the way forward in addressing challenges facing farmers/ audience. This also means that that the more salient news issue is in terms of frequency and prominence of coverage, the audience will regard it as important.

This theory is relevant to this study as radio can be used to highlight issues relating to the farmers and also offer solutions. The radio station can involve the community on key areas and expose them to the issues. Griffin (2006) postulates more frequency and prominence of the news media exposes the public to the issues and the more instances the issues become accessible in the audience memories. This therefore means that placement and repetition of developmental programmes in this case on farming will be functionally important and empowering to the community more so farmers.

2.9.2 Uses and gratification theory

Turner (2000) states that there are many reasons why audiences choose a particular media. Bulmer and Katz (1974) argued that different people use the same communication message to gratify different needs. This theory does provide a framework on the process by which media participants seek information selectively proportionate to their needs and interests. Radio has a direct, immediate and influential effect on media users (Katz, 1959). What people do with it is what matters and not what the mass media does to people. It therefore gives people the opportunity to use media to meet their needs. The theory is audience centered as the audience choose and have reasons for using certain media to gratify their needs. McQuail (1987) suggests people's needs influence what media they choose, how they use particular media and how it gratifies them. This theory therefore implies that that the media tries to compete with other information sources for viewer's gratification. (Katz, E., Blumler, J.G., & Gurevitch, M.1974). The theory focuses more on the audience and not the message itself by asking 'what people do with media' rather than ' what media does to people' (Katz, 1959). It assumes that the

audience takes an active role as opposed to passive in interpreting and integrating media in their own lives. This means that the audience is responsible for choosing a specific media to meet their needs.

This theory is relevant to this study, as we will be determining whether the farmers in Kimilili constituency listen to radio and the reasons that informed their decision to listen to the stations that they do. Since radio has a way of influencing people's choices, we will identify whether the farmers are influenced by what they hear on radio especially when it comes to the choices they make on agriculture and whether those choices really do meet their objectives.

CHAPTER THREE

METHODOLOGY

3.0 Overview

This chapter explains how the research was carried out .It shows the sample size and the sample procedures that were used, how the data was collected, gives the scope of the study, the limitation of the study and the ethical considerations.

3.1 Descriptive Research design

Research design is a blueprint, or procedures for conducting the study in such a way that maximum control will be exercised over factors that could interfere with the validity of the research outcome. It is the researchers overall plan for obtaining answers to the research questions guiding the research (Polit and Hungler, 1998).

3.2 Research approach

This study used the mixed methods approach that involved collection of both quantitative and qualitative data. Mugende & Mugenda (2003) state that both methods complement each other in that qualitative method provides the in-depth explanations while the quantitative method provides hard data needed to meet required objectives. The mixed method balances both strengths and weaknesses of qualitative and quantitative research (Creswell, 2006).

3.3 Target population

A population is defined as a complete set of individuals, cases or objects with some common observable characteristics (Mugenda & Mugenda, 2003). In this study, the target was drawn from

the farmers in Kimilili Constituency, program managers from West FM Radio station and agricultural extension officers from the area. Kimilili Constituency has a total of four wards namely; Kibingei, Maeni, Kimilili and Kamukuywa. I selected farmers from the four Wards. According to the Ministry of Agriculture, Kimilili constituency has a total of four (4) Wards with a total of 23,700 registered small-scale farmers. Four extension workers were drawn from each ward and three program managers from West FM Radio station. Therefore the total target population was 23,707.

3.4 Sampling procedure and Sample size

The study adopted the purposive sampling technique. This technique is the most suitable because we focused on specific characteristics of a population that was of interest to us and therefore able to enable us answer the research questions. According to Engel and Schutt (2010) purposive sampling method is useful in surveys that target individuals who are knowledgeable about issues under investigation.

In this study we adopted the Yamane (1967) formula to determine the sample size.

Yamane formula, $n = N/[1 + Ne^2]$

Where n=required respondents

N= Total population size

e= Level of significance

e.= error limit

This formula determined the sample size for the 23,707 respondents with a significance level of 93%

Sample size (n) = $23707 / 1 + 23707 \cdot 0.07^2 = 202$ respondents

Sample size of 202 will include 4 agricultural extension workers to be drawn from each of the 4 wards and 3 program managers from West FM Radio stations.

Table 3.1: Sampling procedure and Sample size

Ward	Total Population (N)	% of the total population	Target population
Maeni	5900	25	50
Kibingei	6500	27	53
Kamukuywa	5300	23	47
Kimilili	5900	25	49
Total	23,707	100	199

Source: Researcher 2017

Purposive sampling is suitable for this study as we chose our sample considering factors that enabled us to obtain the specific information required. They were to be residents of Kimilili constituency, people of adult age brackets, farmers, and required to be listeners of the program *ukulima ajira*. We purposed to use a total sample of two hundred and two (202) comprising of four extension workers three West FM program producers. This number is considered to be statistically significant considering the size of the total population of adults who meet the above description and live in Kimilili constituency.

3.5 Research Instruments

3.5.1 Questionnaire

In order to achieve high quality research conclusions, this study used a mix of research tools to collect primary data. The study used a questionnaire, which had both structured open and close-ended questions to generate data (See attached as appendix II). The questionnaires were designed to address specific objectives. They were administered purposively to individuals in the

constituency who practice farming and listen to agricultural programs like *Kilimo ajira* on West FM Radio (Appendix II).

3.5.2 Interview Guides

The study used interviews to collect data from key informants. They were used to collect data from West FM radio program managers and the agricultural extension officers from the four (4) Wards. For this study we adopted the semi-structured interviews and open-ended questions in order to maximize data collected and its accuracy (Appendix III).

3.6 Ethical Considerations

This study relied on primary data generated in the field by way of administering a questionnaire with open and closed end questions to the farmers in Kimilili constituency. Trained research assistants under my supervision administered these questionnaires. The study put into consideration issues of ethics and ensured that honesty was exercised at all stages. We avoided issues of biasness when analyzing, interpreting and presenting data. The study exercised caution when collecting data from the program managers. We also exercised caution and integrity in harmonizing the data to ensure that the information received from the respondents is well captured. The study did not mention respondents' names in order to maintain their privacy and also for integrity purposes. Other factors like plagiarism; training research assistants were put into consideration.

The following information has been attached as indicated; -introduction letter (appendix I), Questionnaire for farmers (appendix II), Interview questions for West FM program managers (appendix III), Interview questions for agricultural extension workers (Appendix IV), Certificate of Fieldwork (Appendix V), Certificate of plagiarism (Appendix VI) and certificate of corrections (Appendix VII).

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Overview

This chapter analyses, interprets and presents collected data aimed at evaluating effectiveness of communicating farming information using regional radio stations.

Data analysis summarizes the findings and observations in a way that it answers to the research questions in line with the main study objectives, which in this case was to study the impact of regional radio farming programs on agricultural productivity in Kimilili Constituency: Case study of West Fm Radio Station. Interpretation provides meanings of information received by linking them to other available knowledge (Seltz C. J. et al 1959). Therefore, this chapter would present findings obtained through study interactions with respondents in the field. The findings are presented in thematic form. The presentation and analysis of the data collected from both listeners and agricultural extension officers are as shown below.

4.2 Questionnaire Return Rate

This refers to the percentage of respondents that were able to dully fill and submit the filled questionnaires for analysis. The study's sample size was 195 small-scale farmers in Kimilili Constituency. 190 farmers dully filled and returned the questionnaires. This gives a return rate of 97.4%. According to Ary et al. (2006) a return rate above 85% is acceptable. This percentage was therefore found to be adequate for analysis as it offered adequate information for making conclusions and recommendations.

4.3. Age of the Respondents

The researcher sought to find out the characteristics of the respondents in terms of age.

The study found out cumulatively in the four wards that the age groups of 18-25 year had 15.3% representation, 26-33 years had 15.3% of the respondents, 34-41 years had 24.2% representation, 42-49% had 32.6% representation while 50 years and above had 12.6% representation. This is a clear indication that the age group of between 42-49% was more involved in farming activity because they are energetic and mature. This is a group whose major role is providing for the family as indicated in table 4.1 below; -

Table 4.1 Age of the Respondents

Wards		Age					Total
		18-25	26-33	34-41	42-49	50 and above	
Kimilili	Count	6	10	12	16	4	48
	% within Ward	12.5%	20.8%	25.1%	33.3%	8.3%	100.0%
	% within Age	20.6%	34.5%	26%	25.8%	16.7%	25.3%
	% of Total	3.2%	5.3%	6.3%	8.4%	2.1%	25.3%
Kamukuywa	Count	8	6	10	15	5	44
	% within Ward	18.2%	13.6%	22.7%	34.1%	11.4%	100.0%
	% within Age	27.6%	13.0%	21.7%	24.2%	20.8%	23.2%
	% of Total	4.2%	3.2%	5.3%	8.0%	2.6%	23.2%
Kibingei	Count	7	8	11	16	8	50
	% within Ward	14%	16%	22%	32%	16%	100.0%
	% within Age	24.1%	27.6%	24%	25.8%	33.3%	26.3%
	% of Total	3.7%	4.2%	5.7%	8.4%	4.2%	26.3%
Maeni	Count	8	5	13	15	7	48
	% within Ward	16.7%	10.4%	27%	31.3%	14.6%	100.0%
	% within Age	27.6%	17.2%	28.3%	24.2%	29.2%	25.3%
	% of Total	4.2%	2.6%	6.8%	7.9%	3.6%	25.3%
Total	Count	29	29	46	62	24	190
	% within constituency	15.3%	15.3%	24.2%	32.6%	12.6%	100.0%
	% within Age	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% of Total	15.3%	15.3%	24.2%	32.6%	12.6%	100.0%

Source: Researcher 2017

4.4 Gender of the Respondents

The study looked into which gender is more dominant in farming activities visa vie listening to radio station for farm technique and empowerment. The study found that in the four wards the male gender had 67.9% acceptance rate while the female gender had 32.1% acceptance rate. This show that the majority of those involved in farming activities are of the male gender as female gender are more involved with house chores. This is reflected in table 4.2 below.

Table 4.2: Gender of the Respondents

Ward		Gender		Total
		Male	Female	
Kimilili	Count	37	11	48
	% within Ward	77.1%	22.9%	100.0%
	% within Gender	28.7%	18%	25.3%
	% of Total	19.5%	5.8%	25.3%
Kamukuywa	Count	30	14	44
	% within Ward	68.2%	31.8%	100.0%
	% within Gender	23.3%	23%	23.2%
	% of Total	15.7%	7.4%	23.2%
Kibingei	Count	30	20	50
	% within Ward	60%	40%	100.0%
	% within Gender	23.3%	32.8%	26.3%
	% of Total	15.7%	10.5%	26.3%
Maeni	Count	32	16	48
	% within Ward	66.7%	33.3%	100.0%
	% within Gender	24.8%	12.4%	25.3%
	% of Total	16.8%	8.4%	25.3%
Total	Count	129	61	190
	% within Ward	67.9%	32.1%	100.0%
	% within Gender	100.0%	100.0%	100.0%
	% of Total	67.9%	32.1%	100.0%

Source: Researcher 2017

4.5 Level of Education

The researcher was interested to find out the literacy level of farmers in the four wards in order to determine how well they implement the skills taught via the radio programs. The study found that 36.2 % had no formal education, 18.9 % had primary education, 24.2% had secondary education, and 14.2% college education while 7.4% had university education. This shows that the majority of the respondents don't have formal education while a considerable number of the population was literate as shown in table 4.3 below.

Table 4.3: Level of education

Ward		Level of Education					Total
		No Formal Education	Primary	Secondary	College	University	
Kimilili	Count	20	8	11	6	3	48
	% within Ward	41.7%	16.7%	22.9%	12.5%	6.3%	100.0%
	% within Level of Education	30.8%	22.2%	23.9%	20.6%	21.4%	25.3%
	% of Total	10.5%	4.2%	5.7%	3.2%	1.6%	25.3%
Kamukuywa	Count	13	10	10	9	2	44
	% within Ward	29.5%	22.7%	22.7%	22.5%	4.5%	100.0%
	% within Level of Education	19.7%	28.1%	21.4%	37.5%	25.0%	23.2%
	% of Total	6.8%	5.3%	5.3%	4.7%	1.1%	23.2%
Kibingei	Count	15	10	13	7	5	50
	% within Ward	30%	20%	26%	14%	10%	100.0%
	% within Level of Education	23.1%	27.8%	28.3%	24.1%	35.7%	26.3%
	% of Total	7.9%	5.3%	6.8%	3.7%	2.6%	26.3%
Maeni	Count	17	8	12	7	4	48
	% within Ward	35.4%	16.7%	25%	14.6%	8.3%	100.0%
	% within Level of Education	26.2%	22.2%	26.1%	25.9%	28.6%	25.3%
	% of Total	8.9%	4.2%	6.3%	3.7%	2.1%	25.3%
Total	Count	65	36	46	27	14	190
	% within Constituency	36.2%	18.9%	24.2%	14.2%	7.4%	100.0%
	% within Level of Education	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% of Total	36.2%	18.9%	24.2%	14.2%	7.4%	100.0%

Source: Researcher 2017

4.6 Farm size

Since this study was aimed at investigating the impact of Ukulima Ajira program on small scale farmers in Kimilili Sub-County, the respondents were asked to approximate the size of their pieces of land. The study found that the occupants of this four wards had varying farm sizes and the. 24.7% of the population had less than one acre of land, 29.5% had 2-6 acres of farm land, 23.7% had 7-11 acres of farm land, 10.5% had 12-16 acres of farm land, 6.3% had 17-21% of the farm land while another 5.3% had more than 22 acres of farm land. This shows that the region's main economic activity is farming due to considerable pieces of land as shown in table 4.4 below. The findings also show that majority of the respondents are small-scale farmers as they own 2-6 acres of land.

Table 2.4: Farm size

			Farm Size					Total	
			Less than 1 Acre	2-6	7-11	12-16	17-21		More than 22
Ward	Kimilili	Count	11	14	15	4	2	2	48
		% within Ward	22.8%	29.2%	31.3%	8.3%	4.2%	4.2%	100.0%
		% within Farm Size	23.4%	25%	33.3%	20%	16.7%	20%	25.3%
		% of Total	5.8%	7.4%	7.9%	2.1%	1.1%	1.1%	25.3%
	Kamukuywa	Count	10	11	13	5	3	2	44
		% within Ward	22.7%	25%	29.5%	11.4%	6.8%	4.5%	100.0%
		% within FarmSize	21.3%	19.6%	28.9%	25%	25%	20%	23.2%
		% of Total	5.3%	5.8%	6.8%	2.6%	1.6%	1.1%	23.2%
	Kibingei	Count	13	14	10	6	4	3	50
		% within Ward	26%	28%	20%	12%	8%	6%	100.0%
		% within FarmSize	27.7%	25%	22.2%	30%	33.3%	30%	26.3%
		% of Total	6.8%	7.4%	5.2%	3.2%	2.1%	1.2%	26.3%
Maeni	Count	13	17	7	5	3	3	48	
	% within Ward	27%	35.4%	14.6%	10.4%	6.3%	6.3%	100.0%	
	% within	27.7%	30.4%	15.6%	25%	25%	25%	25.3%	

		FarmSize							
		% of Total	6.8%	8.9%	3.7%	2.6%	1.6%	1.6%	25.3%
Total		Count	47	56	45	20	12	10	190
		% within Constituency	24.7%	29.5%	23.7%	10.5%	6.3%	5.3%	100.0%
		% within FarmSize	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	24.7%	29.5%	23.7%	10.5%	6.3%	5.3%	100.0%

Source: Researcher 2017

4.7 Type of Farming

The respondents were asked to give information about the type of farming which they are involved in. The study found that 39.6% of the population in the four wards were involved in crop farming, 31.2% mixed farming and 29.2% in livestock rearing. The study shows that the main economic activity of the people in the four Wards is crop farming, which is indicated in table 4.5.

Table 4.3: Type of farming

			Total			
			Crop Farming	Mixed Farming	Livestock	
Ward	Kimilili	Count	19	15	14	48
		% within Ward	39.6%	31.3%	29.2%	100.0%
		% within Type of Farming	26.6%	24.2%	29.2%	25.3%
		% of Total	8.9%	7.9%	7.4%	25.3%
	Kamukuywa	Count	13	18	11	44
		% within Ward	29.5%	40.9%	25%	100.0%
		% within Type of Farming	20.3%	29%	22.9%	23.2%
		% of Total	6.8%	9.5%	5.8%	23.2%
	Kibingei	Count	16	14	13	50
		% within Ward	32%	28%	26%	100.0%
		% within Type of Farming	25%	22.6%	27.1%	26.3%
		% of Total	8.4%	7.4%	6.8%	26.3%
Maeni	Count	18	15	10	48	

		% within Ward	37.5%	31.3%	20.8%	100.0%
		% within Type of Farming	28%	24.2%	20.8%	25.3%
		% of Total	9.5%	7.9%	5.3%	25.3%
Total		Count	64	62	48	190
		% within constituency	33.7%	32.6%	25.3%	100.0%
		% within Type of Farming	100.0%	100.0%	100.0%	100.0%
		% of Total	33.7%	32.6%	25.3%	100.0%

Source: Researcher 2017

4.8 Purpose of Farming

The study found that 25.3% of the respondent engages in farming activity for the purpose of food production, 40% of the population engage in agricultural activity for the purpose of generating income while 34.7% engage in agricultural activity for both food production and commercial purposes. This shows that the majority of the populations engage in agricultural activity for income generation as shown in table 4.6.

Table 4.4: Purpose for Farming

Purpose for Farming						
		Purpose for Farming			Total	
		Food Purposes	Income Generating	Both		
Kimilili	Count	9	18	21	48	
	% within Ward	18.8%	37.5%	43.8%	100.0%	
	% within Purpose for Farming	18.8%	23.7%	31.8%	25.3%	
	% of Total	4.7%	9.5%	11.1%	25.3%	
Kamukuywa	Count	13	17	14	44	
	% within Ward	29.5%	38.6%	31.8%	100.0%	
	% within Purpose for Farming	27.1%	22.4%	21.2%	23.2%	
	% of Total	6.8%	8.9%	7.4%	23.2%	
Kibingei	Count	13	20	17	50	
	% within Ward	26%	40%	34%	100.0%	
	% within Purpose for Farming	27.1%	26.3%	25.8%	26.3%	
	% of Total	6.8%	10.5%	8.9%	26.3%	

Maeni	Count	13	21	14	48
	% within Ward	27.1%	43.8%	29.2%	100.0%
	% within Purpose for Farming	27.1%	27.6%	21.2%	25.3%
	% of Total	6.8%	11.1%	7.4%	25.3%
Total	Count	48	76	66	190
	% within constituency	25.3%	40%	34.7%	100.0%
	% within Purpose for Farming	100.0%	100.0%	100.0%	100.0%
	% of Total	25.3%	40%	34.7%	100.0%

Source: Researcher 2017

4.9 Income Changes

The study found that 75.8% have had their income improve due to better agricultural advice from West FM farming program while 24.2% were of a contrary opinion that their income has not changed because of agricultural advice from West FM program. This shows that agricultural activity has been of great help to the people of this area as it has improved their livelihood as indicated in table 4.7 below; -

Table 4.5: Income Changes

Income Changes					
			Income Changes		Total
			Yes	No	
Ward	Kimilili	Count	39	9	48
		% within Ward	81.3%	18.7%	100.0%
		% within Income Changes	27.1%	19.6%	25.3%
		% of Total	20.5%	4.7%	25.3%
	Kamukuywa	Count	35	9	44
		% within Ward	79.5%	20.5%	100.0%
		% within Income Changes	24.3%	19.6%	23.2%
		% of Total	18.4%	4.7%	23.2%
	Kibingei	Count	36	14	50
		% within Ward	72%	28%	100.0%
		% within Income Changes	25%	30.4%	26.3%
		% of Total	18.9%	7.4%	26.3%
	Maeni	Count	34	14	48
		% within Ward	70.8%	29.2%	100.0%
		% within Income Changes	23.6%	30.4%	25.3%
		% of Total	17.9%	7.4%	25.3%

Total	Count	144	46	190
	% within Ward	75.8%	24.2%	100.0%
	% within Income Changes	100.0%	100.0%	100.0%
	% of Total	75.8%	24.2%	100.0%

Source: Researcher 2017

4.10 Increase in Agricultural Produce

The study found 80.2% of the respondents agreed that due to better information from West FM, they have been able to improve their yields, while 19.8% disagreed that information from the media has improved their yield. This shows that the information passed by the media has greatly improved farm production as shown below in table 4.11.

The agricultural extension officers were asked whether the agricultural produce and standards in the area had improved. All the four extension officers interviewed said that from the reports that they were getting from the farmers during their different engagements, agricultural produce and standards had increased. This was attributed to subsidized fertilizer costs, extension services and information on different farming methods learnt through *Ukulima Ajira* and other agricultural programs on West FM Radio. The extension officers agreed that the program has been helpful in promoting farming in Kimilili Sub-County by providing information about inputs to farmers, thereby facilitating timely planting of crops.

Table 4.6: Increased Agricultural Produce

Increased Agricultural Produce					
			Increased Agri Produce		Total
			Yes	NO	
Ward	Kimilili	Count	43	12	55
		% within Ward	78.2%	21.8%	100.0%
		% within Increased Agri Produce	32.1%	36.4%	32.9%
		% of Total	25.7%	7.2%	32.9%
	Kamukuywa	Count	34	7	41
		% within Ward	82.9%	17.1%	100.0%

		% within Increased Agri Produce	25.4%	21.2%	24.6%
		% of Total	20.4%	4.2%	24.6%
	Kibingei	Count	28	5	33
		% within Ward	84.8%	15.2%	100.0%
		% within Increased Agri Produce	20.9%	15.2%	19.8%
		% of Total	16.8%	3.0%	19.8%
	Maeni	Count	29	9	38
		% within Ward	76.3%	23.7%	100.0%
		% within Increased Agri Produce	21.6%	27.3%	22.8%
		% of Total	17.4%	5.4%	22.8%
Total	Count	134	33	167	
	% within Ward	80.2%	19.8%	100.0%	
	% within Increased Agri Produce	100.0%	100.0%	100.0%	
	% of Total	80.2%	19.8%	100.0%	

Source: Researcher 2017

4.11 Favorite Radio Station

The research sought to find out the popularity of West FM in Kimilili Sub-County. This was important to this research as it intended to survey the impact of farming programs aired on agricultural productivity in the area. Therefore, the popularity of the vernacular radio station would relate to the listening and awareness of the program *Ukulima Ajira*. The respondents were therefore asked what their favourite radio stations are.

The study found that 33.7% of the respondents agreed that West FM radio station was their favorite radio station, 24.2% said Sulwe radio station was their favorite station, 15.8% said Radio Jambo, 10.5% said Citizen TV, 5.3% said Radio Maisha, 5.3% said Nyota FM while 5.3% said other radio stations. This shows that West FM is the dominant radio station in the region as shown in table 4.9.

Table 4.7 Favorite Radio Station

Favourite Radio Station										
			Favourite Radio Station							Total
			West FM	Sulwe	Radio Jambo	Citizen Radio	Radio Maisha	Nyota FM	Others	

Ward	Kimilili	Count	15	13	10	5	2	1	2	48
		% within Ward	31.3 %	27.1 %	20.8 %	10.4 %	4.2%	2.1%	4.2 %	100.0%
		% within Favourite Radio Station	23.4 %	28.3 %	33.3 %	25%	20%	10%	20 %	25.3 %
		% of Total	7.9 %	6.8 %	5.3%	2.6%	1.1%	0.5%	1.1 %	25.3 %
	Kamukuywa	Count	15	10	8	4	2	3	2	44
		% within Ward	34.1 %	22.7 %	18.2 %	9.1%	4.5%	6.8%	4.5 %	100.0%
		% within Favourite Radio Station	23.4 %	21.7 %	26.7 %	20%	20%	30%	20 %	23.2 %
		% of Total	7.9 %	5.3 %	4.2%	2.1%	1.1%	1.6%	1.1 %	23.2 %
	Kibingei	Count	16	11	7	6	4	3	3	50
		% within Ward	32%	22%	14%	12%	8%	6%	6%	100.0%
		% within Favourite Radio Station	25%	23.9 %	23.3 %	30%	40%	30%	30 %	26.3 %
		% of Total	8.4 %	5.7 %	3.7%	3.2%	2.1%	1.6%	1.6 %	26.3 %
	Maeni	Count	18	12	5	5	2	3	3	48
		% within Ward	37.5 %	25%	10.4 %	10.4 %	4.2%	6.3%	6.3 %	100.0%
		% within Favourite Radio Station	28.1 %	26.1 %	16.7 %	25%	20%	30%	30 %	25.3 %
		% of Total	9.5 %	6.3 %	2.6%	2.6%	1.1%	1.6%	1.6 %	25.3 %
Total	Count	64	46	30	20	10	10	10	190	
	% within Constituency	33.7 %	24.2 %	15.8 %	10.5 %	5.3%	5.3%	5.3 %	100.0%	
	% within Favourite Radio Station	100.0%	100.0%	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0%	
	% of Total	33.7 %	24.2 %	15.8 %	10.5 %	5.3%	5.3%	5.3 %	100.0%	

Source: Researcher 2017

4.12 Lessons learnt from *Ukulima ajira* and other Agricultural programs on West FM

Respondents were asked to provide a list of some of the lessons that they have learnt from *Ukulima Ajira* and other agricultural programs on West FM radio. The study found

that 38.4% said that they have been able to learn different farming techniques and better land use, 24.2% said that they were able to plant their crops at the right time because of the advice that the station gave especially in regard to the weather patterns, 15.3% said that they have learnt the different methods of pest and disease control from the station, 10.5% have learnt better animal keeping techniques and the type of feeds to give different animals and 11.6% said that they learnt about storage of their produce and how to market their harvests. This shows that the station has really been of great help to the farmers as they have learnt lessons from it and also put the lessons into practice.

Table 4. 8: Lessons learnt from Ukulima ajira and other Agricultural programs on West FM

Lessons learnt from Ukulima ajira and other Agricultural programs on West FM								
			Lessons learnt from Ukulima ajira & other agricultural shows					Total
			Better land use & farming techniques	Timely planting	Pest & disease control	Better animal keeping methods	Storage and marketing of produce	
Ward	Kimilili	Count	22	12	6	4	4	48
		% within Ward	45.8%	25%	12.5%	8.3%	8.3%	100.0%
		% within	30%	26.1%	20.7%	20%	18.2%	25.3%
		% of Total	11.6%	6.3%	3.2%	2.1%	2.1%	25.3%
	Kamukuywa	Count	16	10	9	5	4	44
		% within Ward	36.4%	22.7%	20.5%	11.4%	9.1%	100.0%
		% within	21.9%	21.7%	31%	25%	18.2%	23.2%
		% of Total	8.4%	5.3%	4.7%	2.6%	2.1%	23.2%
	Kibing'ei	Count	19	11	7	6	7	50
		% within Ward	38%	22%	14%	12%	14%	100.0%
		% within	26%	23.9%	24.1%	30%	31.8%	26.3%
		% of Total	10%	5.8%	3.7%	3.2%	3.7%	26.3%
Maeni	Count	16	13	7	5	7	48	
	% within Ward	33.3%	27.1%	14.6%	10.4%	14.6%	100.0%	
	% within	21.9%	28.3%	24.1%	25%	31.8%	25.3%	
	% of Total	8.4%	6.8%	3.7%	2.6%	3.7%	25.3%	
		% within Ward	73	46	29	20	22	100.0%
			38.4%	24.2%	15.3%	10.5%	11.6%	
		% within	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	38.4%	24.2%	15.3%	10.5%	11.6%	100.0%

4.13 West FM Programs

The researcher sought to find the degree of popularity of *Ukulima ajira program* in Kimilili Sub-County. This was important for the researcher because the degree of popularity of this farming program was a sign that it is effective in communicating to the farmers. The study found that 29.5% listen to Ukulima Ajira Program, 18.4% listen to Bamasaba Program, 5.8% listen to Cross Fire, 5.3% listen to News.10.5% listen to Amka na West FM, 5.3% Changamka na West FM, 5.3% listen to Za Kisasa with DJ Walter and 20% listen to other programs. The study shows that *Ukulima Ajira* is the program that is being preferred by the majority of the people in that area as shown in table 4.11 below: -

Table 4.9: West FM Programs

Table 4.11. West FM Programs											
		West FM Programs									Total
			Ukulima Ajira	Bamasaba	Cross Fire	News	Amka na West FM	Changamka na West FM	Za Kisasa with Dj. Walter	Others (Kata Jasho, Jyince Reggae, Tuliza na West FM)	
Ward	Kimilili	Count	17	11	2	1	5	1	2	9	48
		% within Ward	35.4%	22.9%	4.2%	2.1%	10.4%	2.1%	4.2%	18.8%	100.0%
		% within West FM Programs	34.7%	31.4%	18.8%	10%	25%	5%	20%	28.6%	32.9%
		% of Total	10.2%	7.2%	1.8%	1.2%	3.6%	1.2%	1.8%	6.0%	32.9%
	Kamukuywa	Count	12	7	2	3	4	3	3	10	44
		% within Ward	26.8%	14.6%	4.9%	7.3%	9.8%	7.3%	7.3%	22.0%	100.0%
		% within West FM Programs	22.4%	18.2%	25.0%	37.5%	22.2%	37.5%	37.5%	25.7%	24.6%
		% of Total	6.6%	3.6%	1.2%	1.8%	2.4%	1.8%	1.8%	5.4%	24.6%
	Kibingei	Count	15	8	5	3	5	3	3	8	50
		% within Ward	33.3%	21.2%	6.1%	3.0%	9.1%	3.0%	3.0%	21.2%	100.0%
		% within	22.4%	21.2%	25.0%	12.5%	16.7%	12.5%	12.5%	20.0%	19.8%

		West FM Programs									
		% of Total	6.6%	4.2%	1.2%	.6%	1.8%	.6%	.6%	4.2%	19.8%
	Maeni	Count	12	9	2	3	6	3	2	11	48
		% within Ward	26.3%	21.1%	2.6%	5.3%	13.2%	5.3%	2.6%	23.7%	100.0%
		% within West FM Programs	20.4%	24.2%	12.5%	25.0%	27.8%	25.0%	12.5%	25.7%	22.8%
		% of Total	6.0%	4.8%	.6%	1.2%	3.0%	1.2%	.6%	5.4%	22.8%
Total		Count	56	35	11	10	20	10	10	38	190
		% within Ward	29.5%	18.4%	5.8%	5.3%	10.5%	5.3%	5.3%	20%	100.0%
		% within West FM Programs	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	29.5%	18.4%	5.8%	5.3%	10.5%	5.3%	5.3%	20%	100.0%

Source: Researcher 2017

4.14 Impact of the *Ukulima Ajira* program on the audience

The program producers were asked how the *Ukulima Ajira* program had been helpful to the farmers. They responded that the program had helped farmers to achieve their dreams and that it had taught them new technologies in farming such as greenhouse farming.

The producers also said that the program has met its objectives, which are; to be able to inform the listener on new ways of farming, to help farmers get the market for their produce, to educate the farmers on emerging technologies in livestock keeping and to connect farmers with trained farmers and experts so as to be able to get what is needed in farming.

Ukulim ajira and other agricultural programs according to the West FM producers has been very helpful and has managed to meet its objectives.

4.15. Listeners of the Agricultural Programs

The study found that 73.2% of the respondents listen to agricultural program while 14.6% disagreed to listening to the agricultural programs. The study shows that most of the

respondents listen to agricultural program as a source of education to improve their farm produce as shown in table 4.12 below; -

Table 4. 10Listeners of Agricultural Programs

Listeners of the Agricultural Programs					
			Listen to Agri Programs		Total
			Yes	NO	
Ward	Kimilili	Count	38	10	48
		% within Ward	79.2%	20.8%	100.0%
		% within Listen to Agri Programs	20%	5.3%	25.3%
		% of Total	24.6%	8.4%	32.9%
	Kamukuywa	Count	34	10	44
		% within Ward	77.30%	22.7%	100.0%
		% within Listen to Agri Programs	25.4%	22.0%	24.6%
		% of Total	17.9%	5.3%	23.2%
	Kibingei	Count	35	15	50
		% within Ward	70%	30%	100.0%
		% within Listen to Agri Programs	20.6%	17.1%	19.8%
		% of Total	18.4%	7.9%	26.3%
	Maeni	Count	32	16	48
		% within Ward	66.7%	33.3%	100.0%
		% within Listen to Agri Programs	21.4%	26.8%	22.8%
		% of Total	16.8%	8.4%	25.3%
Total	Count	139	51	167	
	% within Ward	73.2%	26.8%	100.0%	
	% within Listen to Agri Programs	100.0%	100.0%	100.0%	
	% of Total	73.2%	24.8%	100.0%	

Source: Researcher 2017

4.16 Time Allocated for Agricultural Program on Air

The study sought to find whether the time allocated to agricultural program was sufficient, the study found that 54.7% of respondents agreed that agricultural programs were allocated enough time while 45.3% disagreed that agricultural programs were allocated enough time and requested for more time to be allocated. This shows that the majority of respondent were satisfied by time allocated for agricultural programs on West FM as shown in table 4.13 below; -

Table 4.11: Frequency of agricultural Programs Sufficient

Frequency of Agricultural Programs Sufficient					
			Frequency of Agricultural Program Sufficient		Total
			Yes	No	
Ward	Kimilili	Count	27	21	48
		% within Ward	56.3%	43.7%	100.0%
		% within Frequency of Agri Program Sufficient	33.7%	32.0%	32.9%
		% of Total	14.2%	11.1%	25.3%
	Kamukuywa	Count	25	19	44
		% within Ward	56.1%	43.9%	100.0%
		% within Frequency of Agri Program Sufficient	25.0%	24.0%	24.6%
		% of Total	13.2%	10%	23.2%
	Kibingei	Count	28	22	50
		% within Ward	57.6%	42.4%	100.0%
		% within Frequency of Agri Program Sufficient	20.7%	18.7%	19.8%
		% of Total	14.7%	11.6%	26.3%
	Maeni	Count	24	24	48
		% within Ward	50.0%	50.0%	100.0%
		% within Frequency of Agri Program Sufficient	20.7%	25.3%	25.3%
		% of Total	12.6%	12.6%	25.3%
Total	Count	104	86	190	
	% within Ward	54.7%	45.3%	100.0%	
	% within Frequency of Agri Program Sufficient	100.0%	100.0%	100.0%	
	% of Total	54.7%	45.3%	100.0%	

Source: Researcher 2017

4:17 Participation in the West FM Programs

The researcher wanted to find out whether these programs were customized to engage public opinion. The study found that 68.4% agreed that West FM program engaged the audience in their deliberation and the station sought input while 31.6% disagreed that public opinion was sought. This shows that a significant number were of the opinion that the programs involved public participation as shown in table 4.14.

Table 4.12: Participation in the West FM programs

Table 4.16: Participation in the West FM Programs					
			Participate in the West FM Programs		Total
			Yes	No	
Ward	Kimilili	Count	36	12	48
		% within Ward	75%	25%	100.0%
		% within Participate in the West FM Programs	33.6%	31.4%	25.3%
		% of Total	39.5%	6.3%	25.3%
	Kamukuywa	Count	32	12	44
		% within Ward	70.7%	29.3%	100.0%
		% within Participate in the West FM Programs	25.0%	23.5%	23.2%
		% of Total	17.4%	7.2%	23.2%
	Kibingei	Count	33	17	50
		% within Ward	72.7%	27.3%	100.0%
		% within Participate in the West FM Programs	20.7%	17.6%	26.3%
		% of Total	14.4%	5.4%	26.3%
	Maeni	Count	29	19	48
		% within Ward	63.2%	36.8%	100.0%
		% within Participate in the West FM Programs	20.7%	27.5%	25.3%
		% of Total	14.4%	8.4%	25.3%
Total	Count	131	59	167	
	% within Ward	68.4%	31.6%	100.0%	
	% within Participate in the West FM Programs	100.0%	100.0%	100.0%	
	% of Total	68.4%	31.6%	100.0%	

Source: Researcher 2017

4.18 How Ukulima Ajira has benefitted the farmers

Respondents who found the program helpful were asked how it has been helpful to them.

27.9% said the program has enabled them to increase their farm output, 26.3% were able to increase their income, 16.3% were able to reduce their cost of farming, 14.7.5% were

able to control pests and diseases and 14.7% were able to buy quality seeds. The findings therefore indicate that majority of the respondents were able to increase their farms' output.

Table 4. 13: How Ukulima Ajira has benefitted the farmers

			Increased output	Reduced farming cost	Ability to buy quality seeds	Ability to control pests and diseases	Increased income	
Ward	Kimilili	Count	13	8	8	7	12	48
		% within Ward	27.1%	16.7%	16.7%	14.6%	25%	100.0%
		% within West FM Programs	34.7%	36.4%	37.5%	25.0%	33.3%	25.3%
		% of Total	6.8%	4.2%	4.2%	3.7%	6.3%	25.3%
	Kamukuywa	Count	11	7	8	6	12	44
		% within Ward	25%	15.9%	18.2%	13.6%	27.3%	100.0%
		% within West FM Programs	22.4%	18.2%	25.0%	37.5%	22.2%	23.2%
		% of Total	6.6%	3.6%	1.2%	1.8%	2.4%	23.2%
	Kibingei	Count	17	7	5	6	15	50
		% within Ward	34%	14%	10%	12%	30%	100.0%
		% within West FM Programs	22.4%	21.2%	25.0%	12.5%	16.7%	26.3%
		% of Total	8.9%	4.2%	1.2%	.6%	1.8%	26.3%
Maeni	Count	12	9	7	9	11	48	
	% within Ward	25%	18.8%	14.6%	18.8%	22.9%	100.0%	
	% within West FM Programs	20.4%	24.2%	12.5%	25.0%	27.8%	25.3%	
	% of Total	6.0%	4.8%	.6%	1.2%	3.0%	25.3%	
Total	Count	53	31	28	28	50	190	
	% within Ward	27.9%	16.3%	14.7%	14.7%	26.3%	100.0%	
	% within	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

	West FM Programs						
	% of Total	27.9%	16.3%	14.7%	14.7%	26.3%	100.0%

Source: Researcher 2017

4.19 Effective communication methods between the Extension workers and Farmers

The extension workers said that the most effective way of communicating with the farmers was through farm visits, field days, posters, phone calls and radio. Radio was significant as a platform for communication as it gave farmers great insights and ideas on different agricultural methods and how to improve yields.

4.20 Improvement of farming standards in the area

The agricultural workers were asked whether the agricultural programmes on West FM radio improved the standard of farming. Their response was that the agricultural programmes have contributed positively in agricultural productivity as yields have increased and farmers' complaints had reduced significantly. This is attributed to the ideas provided by the station like new ways of farming (green house), subsidized farm inputs, importance of buying quality seeds, different methods of controlling diseases and pests, how to market their produce etc.

4.21 Promotion of Farming by *Ukulima Ajira* program

The extension officers were asked if the ukulima ajira program had been helpful in promoting farming in Kimilili constituency. This question was significant because it gave an opportunity to get the experts' opinion. The officers agreed that the regional stations especially west fm have been helpful in promoting farming in Kimilili constituency by

providing information about inputs to farmers, thereby facilitating timely planting of crops

4.22 Conclusion

The findings of this study confirmed that farmers' need for agriculture information is significant; information is a critical determinant of the success in human endeavor such as storage of farm produce towards food security Sokoy et al (2014). Rural communities that depend mainly on agriculture rely on indigenous knowledge for innovation and adoption. Farmers on their own part need to know how to increase their yield, how to use new techniques and the findings of contemporary agricultural research and how to operate in changing market and credit situation (Lucky and Achebe 2013).

The media play a key role in disseminating data and raising awareness of climate change. Radio shows and news reports on success stories or local farming innovations should be supported and promoted (Africa Adapt 2012). Kenya's economy is supported by agriculture and it is mainly dependent on small-scale farmers 75% (NASEP 2012:2). Kenya is among African countries, which are supported by small-scale farmers yet despite the importance African countries are yet to devote their efforts to the dissemination of knowledge and modern knowledge on agriculture to rural areas where up to 80 of the African population live Sokoya et al (2014).

According to the agricultural extension officers and the farmers in the study area, the agricultural programs have contributed positively in agricultural productivity as yields have increased. This is attributed to the ideas provided by the station like new ways of farming (green house), importance of buying quality seeds, different methods of

controlling diseases and pests, how to market their produce etc. Despite the fact that the program has been helpful to the farmers, some of them were still experiencing challenges that were affecting their agricultural production. Some of the challenges include; change in weather patterns, high cost of farm materials, disease in breeding and financial constraints for artificial insemination.

The farmers and extension officers recommended that the program should continue being aired and that it should be allocated more time. That the station should also advertise more about it and if possible reschedule its airing from 8:00pm to around 8:30so that the female gender can also have a chance to listen to it more. They also proposed that different experts in different agricultural fields should be invited so that the farmers can benefit from the different information that will be provided by the different experts.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Overview

This chapter summarizes, the conclusion and recommendations of the findings of the study. The conclusion of the study has been formulated from the findings and a summary on the same given. The chapter also presents recommendations to the study based on the respondents' opinions on regional radio farming programs on agricultural productivity in Kimilili Constituency: Case study of West FM Radio Station.

5.2 Summary of the Findings

The study found that the age group of 42-49 with a presentation of 32.6% of the population was more dominant in the agricultural activity. This means that at this age group most of the people have families are energetic and are mainly focused on providing for their families. The study farther found that the majority of people involved in agricultural activity have no formal education at 36.2% of the population. The major reason given for this is lack of school fees. Despite agriculture being the main economic activity of the area, most farmers have 2-6 acres of land for agriculture representing 29.5% of the total farmlands in the area. The main purpose for the agricultural activity in the area is for food production in homes at 34.7% and for income generating at 33.5% of the total production. The main type of farming being practiced in the area is crop farming at 33.7% of the farming activity in the region. This implies that most farmers exercise crop farming as a way of earning livelihood. Since the introduction of West FM radio station in the area and the introduction of farming programs at the station, farmers have

recorded high production as a result of this programs at 80.2% compared to earlier years without the programs. This has enabled farmers to engage presenters and experts from the field of agriculture on good practices for their farms. This is farther supported by a massive population at 40.7% who said that they listen to West FM on a daily basis. Their favorite program at 29.3% of the respondent sample said that *Ukulima Ajira* program is more educative and is known to make a positive impact in the society. The researcher noted that at 75.4% of the population were more interested in conservative programs like agricultural programs that keep them laid back and listen. When asked whether the time allocated for the program on agriculture was enough, 54.7% agreed that the time was enough while 45.3 opted to be allocated more time on air. The majority of the population at 75.8% acknowledges that with the establishment of west fm radio station in the region it has improved their agricultural skills, which in turn led to increase in productivity and income generation. This has been as a result of daily engagement between farmers, presenters and experts who come on air to share their knowledge and experience.

Majority of the population in Kimilili constituency is farmers. The findings of the study show that Kibingei ward had the highest population of farmers followed by Maeni, followed by Kimilili and finally Kamukuywa wards respectively. The study also concluded that most of these farmers owned a 2-6 acre size of land. The findings of the study also revealed that the farmers in all four wards relied on agriculture for both home use and commercial purposes.

West FM is considered to be the most popular radio station among the farmers in Kimilili constituency followed by Sulwe, radio jambo, citizen FM, radio maisha, nyota FM and others. The findings of the study also show that West FM listeners are daily consumers of its programs. These programs included *Bamasaba*, *ukulima ajira*, cross fire, news, *amka na west FM*, *changamka na west FM*, *Za kisasa na Dj Walter* and others (*kata jasho*, *jinyce reggae*, *tuliza na west FM*). Most respondents in Kimilili constituency tune to west FM due to its agricultural program *ukulima ajira*. *Ukulima Ajira* is the most popular program aired by the station.

Finally, the research findings revealed that farmers and especially in the area chosen for study expressed positive views on the role the regional station West FM and its agricultural program has played in enhancing their farming activities and above all the productivity of their farming activities

5.3 Conclusion

In conclusion it is important to note that west fm radio station is dominating the area in terms of favorability and also improving the lives of farmers through knowledge dissemination. It is noteworthy to state that the major recommendation proposed by many of the sampled group was for the station to increase the frequency of airing of the *Ukulima Ajira* program as well as invite different experts to the agricultural programs as this will help the people acquire knowledge that will in turn help them acquire the necessary skills needed in improving agricultural productivity.

5.4 Recommendations

Some of the recommendations for the station are that, the station considers inviting more agricultural experts in the agricultural programs in order to advise farmers on different farming practices. They should also consider rescheduling the time for airing the program so that the female gender gets to be included thereby enabling them to benefit from the programs. They had proposed that the programs be aired at around 5pm or 8:30pm instead of the current 8pm, as most of them are busy preparing dinner for their families.

The station should also increase the frequency airing of the agricultural programs from once a week to at least twice so that incase one episode was missed then farmers will be able to get information from the second episode that runs during the week instead of having to wait until the following week in order to listen to the programme.

Recommend that farmers tune in and participate more in the agricultural programs aired by radio stations so that they can gain knowledge on how to improve on their farming activities

The radio practitioners to visit farmers so as to have first hand information on what really happens on the ground. i.e the challenges that farmers are facing and the different ways that they can help or package their programs in order to meet the needs of the farmers.

The researcher recommends that the radio station invests more in the agricultural programs and considers building partnerships with farming institutions within Kimilili Constituency to come up with incentives that can benefit the farmers.

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APPENDIX 1

INTRODUCTION LETTER

Sheila R. Murumba

University Of Nairobi

Dear Sir/Madam,

RE: DATA COLLECTION

This is to kindly request you to fill in this questionnaire, which is part of a research I am undertaking for the award of Master of Arts in Communications Studies degree at the University of Nairobi. This information is purely for academic purpose and will be treated with maximum confidentiality. Your co-operation will be highly appreciated.

Thanking you in advance for your cooperation.

Yours Faithfully

Sheila Murumba

APPENDIX II

West FM Radio Station Audience Questionnaire

SECTION A: DEMOGRAPHIC PROFILE OF INTERVIEWEE

1. AGE

2. GENDER M F

3. EDUCATION LEVEL

Primary Secondary Tertiary
College University

4. If you engage in agriculture, how large is your farm?

- Less than one acre []
- One to five acres []
- Six to 20 acres []
- More than 20 acres []

5. Is your farm produce consumed at home or sold?

- All is consumed at home []
- Some sold []
- Other uses []

6. What type of farming do you practice?

- Livestock []
- Crop farming []
- Both []

7. What is your purpose for farming?

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

8. Have you noticed any changes in your income for the past two years?

.....

.....
.....
9. Has your agricultural produce increased in the past two years?
.....
.....
.....

Knowledge level of farmers on agricultural programs broadcast by West FM

10. Which are your two favorite radio stations?

a) _____ b) _____

11. a) Do you listen to West FM radio?

Yes [] No []

b) Explain your answer

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

12. How often do you listen West FM radio?

Everyday []

Once in a week []

Twice in a week []

Never []

13. Which two programmes broadcast by West FM are your favorite?

a) _____ b) _____

14. Do you listen to agricultural programmes on the station like Ukulima ajira?

Yes [] No []

b) If Yes, explain

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

.....
c) If No, explain

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

16. How has the information helped you improve your livelihood/farming?

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

17. Do you think the frequency of the spot for agricultural programmes is sufficient?

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

18. What important matters have you learnt through West FM?

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

19. How do you use the educative information?

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

20. Have you participated in any programme?

Yes [] NO []

21. Have you ever given your views on farming matters about your locality on West FM?

Yes [] No []

22. What recommendations would you give West FM for it to play a greater role in agricultural development?

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

APPENDIX III

In-depth interview questions for West FM Programme managers

1. Kindly give a brief history of west FM
2. How does it identify the needs of farmers in this region?
3. What types of programmes are aired on the station
4. How does the community participate in the radio programmes in this region?
5. How many hours per week have you slated for developmental programmes in this case on agriculture on your station?
6. What informed your decision to include them in your programming schedule?
7. How do you rate the popularity of this programmes in relation to other categories of programming on your radio station?
8. Do the programmes serve the intended purpose?
9. Do you feel like you have been able to reach your target audience?
10. a) Are you able to get feedback from the audience of the programs? If yes, how does the feedback influence your programming?
11. How do you intend to improve as a radio station in assisting farmers in this region?
12. Does the station face any challenges in regards to production and scheduling of development programmes?

APPENDIX IV

In-depth interview questions for Agricultural Extension officers in Kimilili Constituency

1. Is agricultural productivity in this area improving or declining?
2. Are the rural radio stations helpful in promoting farming in this area
3. Are the agricultural programmes on West FM like Kilimo ajira helpful in promoting farming in this area?
4. Would you recommend that farmers listen to the agricultural programmes on West FM and any other radio station broadcasting in the region?
5. What recommendations would you give to the programme managers of radio stations
6. Which methods of communication do you use to communicate to the farmers in this region?