

**INFLUENCE OF EGESA FM'S PROGRAMS ON VALUE ADDITION PRACTICES OF  
FARMERS IN NYARIBARI CHACHE SUB-COUNTY, KENYA.**

Marube K. Martha

**A RESEARCH PROJECT SUBMITTED TO THE SCHOOL OF INFORMATION  
COMMUNICATION AND MEDIA STUDIES IN PARTIAL FULFILLMENT  
FOR THE REQUIREMENT FOR THE AWARD OF A MASTERS OF SCIENCE  
DEGREE IN COMMUNICATION STUDIES OF RONGO UNIVERSITY**

**SEPTEMBER, 2017**



## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Introduction**

This chapter traces the development of Kenya's media industry and the developments that specifically formed a basis for the sprouting of vernacular media; it further explores agricultural development in Kenya giving a background of Value-added agriculture. This is followed by a discussion of challenges facing farmers which forms the basis of the problem statement. The chapter also covers the aim, research objectives and significance of the study.

#### **1.2 Background to the study**

The media play a crucial role in development and have the ability to reach wide audiences with strong and influential messages which impact on society. Broadcasting retains a position of enormous influence over social, cultural and political life in nearly all parts of the world (Buckley et al., 2008). This is true for Kenya where the broadcasting industry has diverse media that impact either positively or negatively on the lives of the populace.

Radio has been acclaimed by many developments -oriented communicators as the medium of the people and as the only medium which reaches all segments of society even in the poorest countries (Okigbo, 1995). Radio is particularly accessible in financial terms and is the only source of information for many of the world's poorest people (Buckley et al., 2008). Radio has many advantages which include a low cost, easy access and the fact that it can easily address the issues of marginalized cultural groups in a language they understand.

Kenyan local radio has a wide outreach and program producers can come up with development messages for their audience. Myers (2008) has pointed out that, one of the main challenges for developmental content on African radio is the need to produce programmes on a tight budget. This implies that African radio stations are financially constrained and may not be in a position to produce development oriented programmes because they require a huge budget. This challenge can be overcome with the support of development partners funding some of these programmes.

Radio for development centers on community participation in development programs so as to improve their livelihoods and environment. Okigbo (1996) has noted that the mass media if

properly used can be an indispensable source in mass education of society, sharing of consciousness, creation of nationhood and promotion of socio-economic development.

For a long time in Kenya, mass communication had been limited to two official languages that locked out the majority of the people especially in the rural areas who could not comprehend English or Kiswahili (Situma, 2010). These people would have been well served if they had mass media in their local language.

Melkote (2001) observes that, extension had long been and continues to be regarded as a logical and systematic method for disseminating productive and useful knowledge and skills to receivers. Radio based agricultural extension services have been introduced in various parts of Africa and the World in order to teach farmers various agricultural practices. Agricultural extension programmes are prepared by trained community radio agricultural extension officers. Their role is to visit farmers in the community, discuss their problems and priorities, and then prepare a series of discussions with local experts, a drama or a combination of techniques including interviews with farmers in the field. The programmes are felt to be far more accessible to local farmers if they can hear themselves or their neighbours discussing the issues directly on the radio.

Norrish (1998) has observed that, 'it is no longer considered good enough for media professionals to isolate themselves from the audiences they are supposed to serve.' In order to achieve a level of farmer participation the radio extension officers have to spend at least 12 days a month recording out in the villages, spending the rest of the time editing in the studio with the producer, tracking down specialists from the district offices of the Ministry of Agriculture, regional universities and local NGOs, and researching the programme topics.

Regular transmission of radio programs related to agriculture gives valuable information about new farming methods. Radio transmission is quick and reaches to a wider population. As the farmers receive useful information from the radio, gradually they bring change in farming method applying new techniques (Ekoja, 2003, p.21). Information and knowledge are two significant factors for rural development. The knowledge of locality further assists the farmers. Dissemination of information along with new concepts and farming techniques can bring novel opportunities to the farmers (Mohammad Retz Nazn and Hasan Harbullah, 2010, pp. 13-20). The study done by Jenkins and his contemporary in northern California has shown that the mass communication has provided much useful knowledge related to

agriculture and the experience was quite meaningful. Radio has been proved as the important tool for the enhancement of agriculture in the rural area.

In many countries, radio is the powerful and effective medium to project the information and knowledge related to agriculture. (Nakabugu, 2001; FAO, 2001) According to Sharma (2008), radio is the reliable medium that can cover wider area and can reach to the large number of people. The strength of radio as the medium of communication is that it is cost effective in terms of transmission, presentation and portability.

Radio can be useful medium to educate farmers if it appeals them with new programs having modern agricultural technologies. However, the literacy of farmers is important if they are to understand the message in such programs and apply them appropriately (Mohammad R. et al., 2010). As the rural farmers themselves participate in the radio programs, they become more interesting and effective because of the feeling of the ownership. The message and information easily gets through. Important information related to agriculture can be provided using radio. Nakabugu (2010) writes: "Information on better farming methods, improved seeds, timely planting, agro-forestry, better harvesting methods, soil conservation, marketing, post-harvest handling and diversification. He posts that rural radio gives farmers an opportunity to interact with each other and other relevant authorities e.g. extension workers, crop and animal experts through format like live talk shows, phone in programs and on location broadcasts" He further adds, "Since Rural radio is community based, it can be used to mobilize people towards community development work such as construction of valley dams, protected wells and immunization of animals".

The international organizations like United Nations Children's Fund (UNICEF), United Nations Educational Scientific Cultural Organization (UNESCO) and Food and Agricultural Organization (FAO) have been using radio for the development in respective fields since 1960 (Chapman, R. et. al, 2003). Chapman (2003) further writes about rural radio, the strength of rural radio as an extension tool is widely regarded to lie in its ability to reach illiterate farmers and provide them with information relating to all aspects of agricultural production in a language they understand. This emphasizes that rural radio, as a tool of agricultural development and rural development should aim to bring transformation in the livelihood of the farmers by providing useful information.

Today Kenya has over 20 local language radio stations (Oriare, 2010). Local language radio stations are popular because they broadcast in a language that the audience understands. These stations penetrate all social classes and can send messages that impact upon these classes. Agriculture is practiced in the rural areas where majority of the population lives. The rural people are the main agents of experimentation on their plots of land, the seekers of new information and decision makers on the best way to introduce new farming practices (White, 2008). Participatory communication on radio where the farmer gets actively involved in selecting the content of agricultural programs can be used to help the country achieve Vision 2030 blueprint to have enough food for the rising population.

Participatory radio campaigns have been used in Africa in the past to involve farmers in finding solutions to challenges in farming and improving farming practices. One such campaign was conducted by Farm Radio International in five African countries. The key finding of the campaign was that it was successful in motivating small-scale farmers to take up improved farming practices and adopt the improved farming methods.

According to (Oriare et al., 2010), all the major communities in Kenya have their own ethnic language radio station. Local language radio has given the rural communities in Kenya a voice. Every day these communities engage in discussions on issues that affect their lives through local radio in a language they understand. Local language radio contributed immensely to the high levels of political participation in 2007 elections by delivering civic education platforms.

Local language radio stations have programming that targets rural communities. Though the stations play music most of the time, they have some talk programs that feature a variety of topics. Agricultural programmes, on these radio stations have content that targets a small scale farmer. Through these programs farmers discuss issues that affect them and are also advised by agricultural experts on best agricultural practices. The rural communities will use media for different reasons. Mcquail (2010) posits that media use is largely shaped by certain relatively constant elements of social structure and media structure. Social structure includes demographics such as level of education, income level, age, gender, occupation among others. The rural farmer will use the media probably because he has a need that may be

gratified by the media. Agricultural radio programs on local radio stations have the farmer as the target audience.

It is worth noting that, the rapid growth in the media sector in Kenya since independence has been lauded as key in the social-economic and political transformation of the country. The growth was significant in the last two decades largely due to the liberalization and privatization of the economy and the media sector. Despite numerous developments in the media sector, radio remains the biggest source of news for a majority of Kenyans (MCK Report, 2014). This is largely because radio is affordable and reaches even the remotest parts of the country. The cost of buying and running radio sets is low, even cheap mobile telephones have radio facilities.

The radio landscape has been predominantly characterized by broadcasts in the two main languages (English and Kiswahili) which exclude a majority of the less educated and rural based audiences whose understanding of the two languages is either limited or not practical (MCK,2014). Attempts to provide local languages with limited radio air-time from the national government-owned broadcaster, KBC, for approximately four hours daily, did not satisfy these audiences' needs. The timing was either unfavorable or too short to make programs with significant impacts for the approximately eight local languages covered at the time (Kikuyu, Dholuo, Kipsigis, Kuria, Kisii, Luhya, Kamba and Meru). The liberation of the airwaves in 1990 led to the establishments of several radio stations which have risen to a current total of 158 radio stations. Of these, 54 are FM radio stations dedicated mainly to broadcasting in 19 local languages (Media council of Kenya, 2014).

The Media Council of Kenya estimates that these vernacular stations now command 42 per cent of the total radio market share (Media Council Annual Report, 2014). This is a growth from what the BBC (BBC World Service Trust, 2007), in 2007 had estimated at 27 per cent of the radio market. Moreover, the vernacular radio stations keep increasing not only their number of listeners, but also their reach in the country, which has expanded from being concentrated in the areas dominated by speakers of their languages of broadcast to national and international scales using the internet.

Local language radio stations have attracted large audiences, and by 2007 had 27 per cent of the radio market (compared with 33% held by mainstream radios.) Early content of these stations was music and entertainment based, but audience demand quickly encouraged these stations to focus much of their airtime on popular public discussion fora. Nearly all these stations have highly popular talk shows and call-in programmes, often in the morning prime time slots (MCK Report, 2014). Ramogi FM, calls its talk show, “Baraza” meaning “informal assembly”. The Kikuyu language Inooro FM, has “Hagara” (“Sharpen”) Egesa fm calls its morning talk show “Boka boka” ‘ Wake up wake up’

Though there has been an increase in the number of radio stations able to cover a huge geographical area, it has not necessarily brought about a corresponding increase in social change (Schramm, 1964). Language applied to the mass media may have been an impediment to rural development. This could be because of failure to recognize African indigenous languages as official language. With the coming of colonizers, they partitioned the continent and promoted their culture through enforcing their own languages on indigenous people. The trend continued even after independence with the successive governments claiming that making indigenous languages official would divide the nation along tribal lines. In Kenya and Tanzania, Kiswahili was made a national language even though, especially in Kenya, majority of people could not communicate using it (Orao; Musau, 2009).

Mass communication is the process of creating shared meaning between the mass media and their audiences (Baran, 2006). This means that the messages that are passed on by the media should be understood by the audience. In the past mass communication concentrated on conveying messages from the government to the public in a top down hierarchical pattern to the disadvantage of the receiver (Okigbo, 1996). However, participatory communication can promote the two way flow of information between people and government (Buckley et al 2008). Access to information enables citizens to actively participate in public discussion on issues that affect their lives.

Traditional media has served as a companion as well as an important source of information for the audience. Radio, television and newspapers provide listeners, viewers and readers with something to talk about. Studies based on new theories have supported the role and power of mass media in setting an agenda for public discourse, influencing public opinion



and providing varied gratifications that may meet audience needs (Melkote, 2001). According to Oriare (2010), Kenyan media are powerful drivers of socio economic transformation in the country providing people with information critical for making enlightened decisions and choices on socio economic issues. Kenya has over 63 radio stations and about 7.5 million rural and urban homes have radio sets.

For effective communication to take place, Mwakawago (1986) observes that analysis of the setting should be done for example in the developing countries rural areas in order to get a clear perspective of the subject. This analysis should include language and culture of the people that a communicator wishes to communicate to. In most parts of the African continent, as Orai (2009) observes, the "officially ignored" indigenous languages are spoken by the majority of those with lower levels of education or no education at all. This is corroborated by FAO, 2006 report indicating that 82 percent of the world population is illiterate.

Language barrier has seen the country fail to meet its objectives even after spending billions of shillings on campaign messages on behavior change on different issues among them agriculture. Orai (2009) has argued that the official languages used in campaigns are secondary languages which are very remote from immediate needs and daily living of the largely rural and less formally educated part of the population. This is true as Moemeka (1985) observes that 'any communication message which completely ignores the values that underlie the context in which the people communicate, cannot produce the attitude and behavior changes necessary for rural development'. However this changed in most developing countries since the liberalization of the mass media in the 1990s. Ogola (2011) observes that the widespread disillusionment with the mainstream news media, the depoliticization of the new urban FM radio, and other factors provided an environment conducive to the rise of local-language in Kenya. The success of Kameme FM, a vernacular station introduced in 2000, prompted the emergence of other vernacular stations including Ramogi FM broadcasting in dholuo, Inooro FM in kikuyu; Musyi FM in kikamba; Mulembe FM in luhya; Kass FM in Kalenjin, Egesa FM among others.

Currently, most of the communities in Kenya have more than one commercial vernacular station serving them in a language they can identify with. The use of the local language and the airing of local language programs give considerable prestige to the local/regional popular culture by publicly recognizing the dignity of its medium of expression. The vernacular mass

media, therefore, play a significant role in shaping language pride; reinvention and preservation of community traditions, culture and identity and in the process bring these communities in touch with various socioeconomic innovations (Chemwaina, 2014; Lekgoathi, 2012; Oriare et al., 2010; Orao, 2009; Suryadi, 2005).

In Kenya, the broadcasting environment comprises a mix of commercial/ private and public/community radio. This is a comparatively new development emerging from a tradition of state monopoly of airwaves. The radio tends to have the widest circulation within communities in Kenya (Mbeke, 2008). Whereas radio has very many positive impacts as mentioned earlier, these strengths have been used to promote the narrow selfish interests of the ruling class and the rich who own the media outlets. This does not have to be the case however. There is need for vernacular radio to be objective and balanced when reporting on various issues. The positive roles of radio in Kenya and other African countries in general cannot be underestimated in achieving national cohesion and integration. Dr. Guy Stakey outlines the role of radio as follows:

During the election campaign in 2007 and the subsequent post-election violence (PEV), vernacular radio stations came under scrutiny for disseminating dangerous propaganda and hate-speech through their live talk-shows and call-in programmes (Kriegler Report, 2008). The Kenya National Commission on Human Rights (KNCHR Report, 2008) summarized the role of the vernacular media in the post-election violence as follows:

The media, and particularly local language media, influenced or facilitated the influencing of communities to hate or to be violent against other communities. Radio stations broadcasting in vernacular language were culpable in this respect. Live phone-in programmes were particularly notorious for disseminating negative ethnic stereotypes, cultural chauvinism and the peddling of sheer untruths about the political situation or individual politicians.(KNCHR,2008)

The Commission of Inquiry on Post Election Violence Waki Report (2008) agreed with the human rights report observing that victims of PEV: recalled with horror, fear, and disgust the negative and inflammatory role of vernacular radio stations in their testimony and statements to the Commission. In particular, they singled out Kass FM as having contributed to a climate of hate, negative ethnicity, and having incited violence in the Rift Valley.

The role of vernacular radio stations was tarnished during and after the PEV in 2008 as mere mouth-pieces for ethnic hatred. However, in its policy briefing paper of 2008 the British Broadcasting Corporation international charity World Service Trust pointed out the positive role that some of the FM stations had played in the aftermath of the PEV in 2007/2008:

More recently, most local language stations appear to have been playing an important role in calming tension and promoting dialogue. (Waki Report,2008)

It cannot be denied that Kenya's local language radio stations played and still play a crucial role in influencing decisions and shaping emotions within their audiences. It is for this reason that the researcher seeks to find out its power and relevance in enhancing value-added agriculture.

This research study was carried out in Nyaribari Chache Constituency, Kisii County. It covers 134.40 square kilometers (KNBS, 2012). Kisii has an approximate population total of 127,745 people, 48% male and 52% female. The backbone of Kisii county economy is agriculture. The residents engage in small scale farming and livestock keeping. Agriculture is practiced on small scale family land holding. The main cash crops grown in the county are tea and coffee. Nyaribari Chache constituency has a population of 163,597 people. Most of these people are small scale farmers' engaging in mixed farming and livestock keeping as the main economic activity. The Constituency has six County wards which are: Kiogoro, Keumbu, Kisii Central, Bobaracho and Ibeno ward (KNBS, 2012)

Nyaribari Chache is a rural Sub-county and the residents have access to a variety of radio stations broadcasting in local languages. The two main Ekegusii language radio stations that are accessible by the residents are: Egesa FM and Minto FM. This study set out to assess the influence of Egesa FM's programs on the value addition practices of farmers in this Sub-county.

### **1.2.1 Profile of Egesa FM**

Egesa FM radio station broadcasts in Ekegusii language on 98.6 FM and serves audiences predominantly in Kisii and Nyamira counties. It is a privately owned Ekegusii radio station based in Nairobi but serving audiences predominantly in the former south Nyanza where majority of Kisii speakers reside (Egesa FM Bulletin,2011). The station that came into

operation in 2005 also broadcasts to audiences in Nairobi, Coast region, parts of Western and Nyanza regions and also has an online presence (egesafm.co.ke). Egesa FM radio sells itself as *'Engubaya mwanagetinge* (the shield of the Abagusii people)

The station's vision and mission highlight five areas of programming. The topics covered in programming according to the Egesa Fm bulletin (2011) include:

Economy- Egesa fm explores and highlights the existing and potential business opportunities in the Kisii region and beyond and compares them to global industries and best practices in order to grow the Kenyan economy.

Agriculture- This is the economic activity that is mainstay of the people in Kisii where a vast majority of Egesa fm listeners are found. Egesa looks at agriculture in a 'modern, business oriented' way in order to raise production to internationally competitive levels, and emphasizing value addition in order to achieve better return to investment.

Education- Egesa fm highlights development in Kenya, advising listeners on courses in the current education curricula that are relevant to the modern workplace.

Politics- Egesa fm aims to empower the Ekegusii speaking community on their political rights, duties while providing a platform for dialogue and discussions on current development in the country on the political front'.

Healthcare- Egesa fm gives listeners nutritional information, treatment of various ailments as well as the importance of healthcare insurance.

The area of programming that the researcher was more interested in was agriculture. It is worth noting that Egesa FM has clearly stated that they emphasize value addition in order to achieve better return on investment under agriculture. The study focused on examining the agricultural content that might be in each program more especially their daily agricultural documentary.

### **1.2.2 Agriculture in Kenya**

The Agricultural Act (1986) was established to promote and maintain a stable agriculture, to provide for the conservation of the soil and its fertility and to stimulate the development of agricultural land in accordance with the accepted practices of good land management and good husbandry'. However this has not been very successful due to the performance of the

public sector extension service which has been widely perceived as being below par (NAEP 2001)

Poverty is a major challenge in Kenya, with about 46% of the population living below the poverty line (UNDP, 2009). Many Kenyans cannot afford basic needs such as food, clothing and shelter. The Kenya Vision 2030 is a long term development blueprint, expected to transform the country into a rapidly industrializing middle income nation by the year 2030 (UNDP, 2010). The economic pillar on this vision underpins agriculture as one of the priority sectors that will provide the impetus for economic growth and development.

Agricultural policy in Kenya revolves around the main goals of increasing productivity and income growth, especially for smallholders; enhanced food security and equity, emphasis on irrigation to introduce stability in agricultural output, commercialization and intensification of production especially among small scale farmers; appropriate and participatory policy formulation and environmental sustainability (Alila, Atieno, 2007).

The sector is characterized by weak vertical integration, made worse by weak institutions and support services for agricultural exports. Only a few commodities (coffee, tea, dairy, maize, wheat, beef, and horticulture) provide livelihood for over 85% of the population while coffee and tea alone provide 45% of the wage employment in the sector. Closely linked to this is the narrow base for agricultural exports (UNDP, 2002).

Primary agro-based products constitute about 51% of the country's total exports, with the value of exports from agricultural sector accounting for 64% of total exports ( Republic of Kenya 2003) Despite the potential for exports of fresh produce and the, it only accounts for 3% of the total production of fresh produce (UNDP, 2002). This is mainly due to limited diversification, and low value addition in agricultural exports.

Produce from agriculture is commonly marketed with minimal processing resulting in low revenue earning capacity to farmers, fishermen and creation of fewer employment opportunities for citizens. Efforts should be made to enhance agro-processing to increase value of agricultural exports and enhance their income earning potential. Some of these measures recognized by SRA (2004-2014) include, provision of appropriate incentives for establishing agro-industries in rural areas; focused research on value addition regarding processing, storage and packing of agricultural produce; promotion of partnerships between smallholders and agribusiness; improvement of supportive infrastructure, e.g., rural access

roads, rural electrification, water and telecommunications; and undertake training for farmers and farmer institutions in value addition among others.

The economic review of agriculture (GOK 2013) indicates that the growth of the agricultural sector declined in the second quarter of 2012. There are many factors that could have contributed to the decline but according to Festus T in White (2008) there is increasing consensus that lack of communication can lead to insufficient agricultural production. Farmers in rural Kenya rely on agricultural extension officers for information on best agricultural practices. However there are few extension officers in the Counties serving farmers with the ratio being one extension officer to 753 farmers (Sanga, 2013). The National Agricultural Extension Policy (NAEP) recognizes the need for external assistance to extension by development partners. According to (Oriare et al., 2010), all the major communities in Kenya have their own ethnic language radio station. Communication on best agricultural practices through these radio stations can fill the information gap left by the shortage of agricultural extension officers in the Counties.

### **1.2.3 Value addition to agricultural products**

One of the key policy issues as enshrined in Kenya's agricultural policy is encouraging diversification into non-traditional agricultural commodities and value addition to reduce vulnerability

Value-added agriculture entails changing a raw agricultural product into something new through storage, packaging, processing, cooling, drying, extracting or any other type of process that differentiates the agricultural product from the original primary agricultural products (Dose, 2007; Alila and Atieno, 2006). Examples of value added agricultural products include mango and pineapple juice, cassava and potato crisps, honey, peanut butter, soaps and sausages. Adding value to agricultural products is a worthwhile effort because of the higher returns that come with the investment, the opportunity to open new markets and extend the farmer's marketing season as well as the ability to create new recognition for the farm (Alila and Atieno, 2006). Ndemo (2005) has posited that value-added products are hitting the local market as entrepreneurial farmers take advantage of high-demand product niches. The key to success in value added agriculture-niche markets are where small farmers can be most successful in creating value and establishing profitable businesses (FAO, 2002).

Value addition in agriculture can also be described as any activity a farmer does outside of traditional agricultural production to receive a higher return per unit of any product sold. This includes activities such as agri-tourism, storage, processing and marketing. Litondo and Ntale (2013) suggested that farmers should establish micro and small enterprises (MSEs) in the rural areas as an additional source of income. Rantamaki-Lahtinen (2008) stipulated that the general concept of value addition in agri-business has several implications. First, it implies that a value added initiative leads to an increase in the net return per unit of the product sold. A case in point is where a farmer provides farm tours (agro-tourism) as a means of increasing net farm income. Even if the price of the produce remains the same, as long as the overall net income of the farm increases, the initiative is considered to be value addition.

Michuki (2008) observed that the Kenyan economy is not purely agricultural, close look shows that rural households are doing more than farming. The Kenyan government has put up institutions like Kenya Tea Development Authority (KTDA), Arid Lands Resource Management Project (ALRMP), Kenya Agricultural Research Institute (KARI), Kenya Agricultural Productivity Programme (KAPP), Eastern Province Horticulture and Traditional Food Crops Project (EPHTFCP) to help farmers in value addition in the agricultural sector. Braganza (2014) explained that Kenya rebased her economy from a third world country to a second world country sixteen years ahead of the scheduled Vision 2030. This means that after recalculating the Gross Domestic Product (GDP), which is the total value of goods and services produced in a year, it was realized that Kenya's GDP had expanded by more than a quarter.

Middle income economy status for Kenya should translate to better livelihoods, that is, increased school enrolment, better housing, healthcare, access to clean water and food security. But this seems not to be the case as many Kenyans in the rural areas are still poor (Braganza, 2014). Masinde (2014) that argues middle income status would not take away the country's poor infrastructure, insecurity and high cost of production challenges. He further says that statistical figures alone are not important if they don't transform rural livelihoods. It is important for the country to attract investments in value addition in agriculture which is the backbone of the economy.

#### **1.2.4 Value added agriculture In Kisii County**

Using banana as a substitute for sugar when sweetening biscuits- themselves made out of banana flour is among the things a women group in Kisii has come up with in order to beat the economic challenges its members face. Kenyuni women Group from Nyaura ward in Kisii County was founded 16 years ago with the aim of helping women in the area escape widespread poverty (Africa Review, 2013)

Kisii region is a region where banana grows easily and nearly every has planted some. Growing banana for sale was one of the initial activities the group started, but its not long before they realized that their effort was only benefiting the middlemen. They decided to engage in value addition experts to figure out the way forward. Through trial and error, they discovered that not all banana species could produce usable flour. They then classified their product into two: banana to be ripened and that for processing flour (Africa Review, 2013)

Today banana flour is the most popular value added commodity in Kisii and even beyond. With banana flour one can bake virtually everything that was once made by wheat flour for instance: cakes, biscuits, and chapatti. The banana flour is changing the region's baking industry. Using traditional methods, the bananas are harvested, peeled, cut into small pieces and then dried under the sun before being ground into flour using a mortar and a pestle. It is then sifted and packaged for sale at the group's small shop (Africa Review, 2013)

The group has further adapted quick banana ripening methods to cope with the demand, which apart from being used as sweeteners for their banana flour are being used to make banana jam. To do this, the group uses a ripening chamber that resembles a cupboard where the bananas are laid on several top shelves while the bottom one is lined with avocado. Locked in the ripening chamber, avocado produces a gas that acts as a catalyst to banana ripening process and instead of five days it takes two and half days to get ready and ripe bananas for use. In this way the group is able to cope with soaring demand that comes from domestic consumers as well as small scale entrepreneurs who are using banana flour to bake things which were traditionally baked using wheat flour. (Africa Review, 2013). After this value addition, the group's income increased from \$2800 to \$10800 a year.



### **1.3 Statement of the problem**

Agriculture is the backbone of the Kenyan economy. It is the single most important sector in the economy contributing approximately 25% of the GDP and employing 75% of the national labour force (Republic of Kenya, 2005) Over 80% of Kenya's population live in the rural areas and derive their livelihoods directly or indirectly from agriculture.

Produce from agriculture is commonly marketed with minimal processing resulting in low revenue earning capacity to farmers and creation of fewer employment opportunities for citizens. Efforts should be made to enhance agro-processing to increase value of agricultural exports and enhance their income earning potential. Some of these measures recognized by SRA (2004-2014) include, provision of appropriate incentives for establishing agro-industries in rural areas; focused research on value addition regarding processing, storage and packing of agricultural produce; promotion of partnerships between smallholders and agribusiness; improvement of supportive infrastructure, for example, rural access roads, rural electrification, water and telecommunications; and undertake training for farmers and farmer institutions in value addition among others.

Farmers in Kisii and all over Kenya face the challenge of decreased demand during surplus, their produce rot and this leads to huge losses for the farmers. This situation forces most of the farmers to sell the produce in raw forms to middlemen at low prices to avoid more losses. It is worth noting that Kenya losses at least Ksh 82bn in revenue annually on exports of raw products of tea, coffee, macadamia nuts and cashewnuts ( Mbiuki, 2011)

Kenyan farmers produce a wide variety of agricultural products, but have not been able to optimize the economic benefits they can derive from these products. This has led to demoralization of farmers hence hunger and poverty. The farmer needs to be informed on what to do to his produce after harvest. The farmer, who in most cases is illiterate, needs a form of communication that speaks to his core; in a language he understands. How then can farmers in Nyaribari cache mitigate the issue of selling their products in raw forms to middlemen? This study explores this question by focusing on the influence of Egesa FM programs on the value addition practices of farmers in Nyaribari Chache Sub-county.

### **1.4 Objectives of the study:**

- to explore the influence of Egesa FM programs on value addition practices of farmers in Nyaribari Chache sub-county

- to determine farmers' perceptions of Egesa FM programs
- to find out how farmers use the information from the programs to improve value addition practices
- to find out the challenges farmers face while relying on the programs for information on value addition.

### **1.5 Research questions**

- What is the influence of Egesa FM programs on the value addition practices of farmers
- What are the farmers' perceptions towards Egesa FM programs.
- How do farmers use the information from the programs to improve their value addition practices
- What challenges do farmers in Nyaribari chache Sub-county face while relying on Egesa FM programs to get information on value addition?

### **1.6 Justification of the study**

Radio is the most important source of information and entertainment for many Kenyans. About 68 percent of radio listeners' tune into local language radio stations and all the major communities have their own ethnic language radio station (Oriare, 2010).

Agriculture is the mainstay of the Kenyan economy directly contributing 26 percent of Gross Domestic Product (GDP) annually and 25 percent indirectly (GOK, 2010). The agricultural sector is one among others expected to propel Kenya in to an industrialized country by the year 2030 (UNDP, 2010). The growth of the agricultural sector expanded by 2.3 percent in the first quarter of 2012 (GOK, 2013). However, it declined in the second quarter of the same year to 1.6 percent from 4.2 percent experienced in the same quarter of 2011.

The agricultural sector provides more than 70 percent of informal employment in the rural areas (GOK, 2010). This implies that the agricultural sector is the main means of livelihood for the majority of the rural population.

The government of Kenya through the Ministry of Agriculture employs agricultural extension officers who teach rural farmers best agricultural practices. However, there are few extension officers in the Counties serving farmers, with the ratio being one extension officer to 753 farmers (Sanga, 2013).

The National Agricultural Extension Policy (NAEP),( 2001) recognizes the need for external assistance to extension by development partners. The local radio therefore can collaborate with development partners in the production of agricultural programs so as to bridge the gap and help rural farmers to improve their value addition practices.

### **1.7 Significance of the Study**

The study will be useful to researchers and academia in the field of communication studies as it will be a source of reference in forming their future research topics and studies. It will contribute to the practice of journalism and in particular demonstrate the ability of radio programs in changing people's lives. The findings of this study will generate insight into how vernacular radio stations should operate for the benefit of the communities they serve.

### **1.8 Delimitation**

The study which sought to explore the influence of Egesa FM programs on the value addition practices of farmers in Nyaribari chache Sub-county. ) was carried out in Nyaribari chache constituency. In this study, the population of the study was all the farmers in Nyaribari Chache which was approximately represented by the households in the Sub-County which amount to 28825 (KNBS, 2012). The accessible population was 6248: with Kiogoro ward with 2910 households (KNBS, 2012) representative of individual farmers and Keumbu ward with 3338 households respectively.

The study focused on 364 farmers drawn from two wards in Nyaribari Chache Sub-county. The fact that the researcher is using a sample drawn from the entire population is a limitation because; their views might not fully represent the opinions of the entire population. Many of the respondents to this study may not be able to read and write and therefore information provided in the questionnaires may be biased and highly dependent on the translation provided. Thus, the significance of the study were objectively articulated to the prospective respondents during the piloting face and the actual study .The study assured respondents of strict adherence to ethical standards throughout the study. Respondents were assured of strict confidentiality where any information obtained from them was used solely for the purpose of the present study and no any other use whatsoever. The study sought and obtained informed consent from the authority before data was collected.

## **CHAPTER TWO**

### **THEORETICAL FRAMEWORK AND LITERATURE REVIEW**

#### **2.1 Introduction**

The chapter covers the literature review which provides information from publications on topics related to the research problem as well as what various scholars and authors have discussed on radio in agricultural development. It also covers the critique of existing literature, summary of literature and research gaps.

#### **2.2 Theoretical review**

According to Kombo and Tromp (2009), a theoretical framework is a collection of interrelated ideas based on theories. It is a reasoned set of prepositions derived from and supported by data or evidence and it accounts for or explains phenomena and attempts to clarify why things are the way they are based on theories. A theory is defined as a reasoned statement which is supported by evidence, meant to explain phenomena Kombo & Tromp, (2009). It is a systematic explanation of the relationship among phenomena. Mugenda (2008) defines a theory as a framework of explaining phenomena by stating constructs and the laws that inter-relate these constructs to each other.

Several theories will inform the discussion of this study. For the purpose of this discourse however, the study adopted three theories: the Uses and Gratification Theory, The medium is the message and Diffusion of innovations Theory

##### **2.2.1 Diffusion of Innovation Theory**

In 1962, Everett Rogers developed diffusion theory by combining the information flow research findings with studies about the flow of information and personal influence in several fields including, anthropology, sociology and rural agricultural work (Baran, 2006). The diffusion model assumes that a proper combination of mass mediated and interpersonal communication strategies can move individuals through a process of awareness of a new technology to interest, evaluation, trial and finally adoption of that technology (Melkote, 2001)

Diffusion of innovation is the process by which an innovation is communicated through certain channels overtime among members of a social system. It is a theory of change that explains how an idea or even product spreads through a specific population. For it to spread there has to be a channel through which it is communicated to the people. This channel can

be a radio or television station. Everett Rogers put together data from numerous empirical studies to show that when new technological innovations are introduced they will pass through a series of stages before being widely adopted. Baran (2006) describes five stages that new technological innovations will pass through before being widely adopted. In the first stage most people will become aware of a particular innovation often through information from the mass media. In the second stage the innovation will be adopted by a very small group of innovators or early adopters. After this opinion leaders learn from the early adopters and try the innovation themselves. If they find the innovation useful, they encourage their friends the opinion followers. In the final stage most people adopt the innovation and a group of laggards or late adopters also make the change.

The diffusion studies indicated a great difference among the adopters in terms of their personal characteristics, media behavior and position in the social structure (Melkote, 2001). The early adopters were usually younger, had a higher social status, had more favourable financial status and were equipped with great mental abilities than late adopters (ibid). The early adopters used more mass media and had more opinion leadership characteristics.

Denis & Defleur (2002) has observed that some innovations spread swiftly through society and are taken up by virtually everyone while others spread slowly and are adopted by only a fraction of the population. However (Melkote 2001) notes that, the characteristics of an innovation as perceived by the individuals in a social system affected its rate of adoption.

This theory was quite influential in the 1950's and 60's and Baran ( 2006 ) further explains that the United States Agency for International Development (USAID) used the strategy to spread agricultural innovations in the Third World in the 1950's and 1960's. The theory became a training manual for new agricultural innovations around the world.

Though successful in spreading agricultural innovations around the world' the diffusion of innovation theory has some limitations. Criticisms of the model include its pro-innovation, persuasion and top down nature. This means that it emphasizes more on adoption and underemphasizes on recipient input in to development decisions and programs (Colle, 1989 in Melkote, 2001). The recipient of the innovation is not involved in the innovation process. This also means that this theory is source dominated.

Another weakness of the theory as explained by (Baran, 2006) is that it underestimates power of media especially contemporary media. It assigns very limited role to mass media. The

media mainly creates awareness of new innovations. Its role ends there and only the early adopters are directly influenced by media content. Other people adopt innovations after being influenced by others, so they do not get the information directly from the media.

The theory's strength is that it integrates large amounts of empirical findings into useful theory and provides practical guide for information campaigns in United States and abroad. The strategy was largely used by the United States to spread agricultural innovations in the Third World.

### **2.2.1.1 Relevance of the theory to the research study**

This theory guided this research study which explored the influence of agricultural radio programs on the value addition practices of farmers in Nyaribari chache Sub-county. Radio is an important channel of communication that can be used to spread new agricultural innovations in the rural areas in Africa. Farmers in rural Kenya listen to local language radio stations for information, education and entertainment.

Local language radio stations have agricultural programs which teach farmers various farming practices. The radio as a mass media will create awareness of new agricultural innovations through its programmes. Farmers are the target audience for agricultural programs on radio. The diffusion model assumes that a proper combination of mass mediated and interpersonal communication strategies can move individuals from awareness of a new technology to adoption of the technology. This calls upon communicators on radio to use the best approach in their programs so as to move their audience from awareness to adoption of new farming technologies.

Farmers who listen to the programs will learn new agricultural innovations firsthand and probably adopt them. They will become early adopters of the innovations. After this they may pass on the innovations to others who will adopt them, increasing the number of those adopting the innovations.

One of the weaknesses of the theory is its top down nature. It emphasizes more on adoption and underemphasizes on recipient input into development decisions and programs. It is important for radio producers to do audience research before producing their programs. This way they can be able to assess the needs of their audience and incorporate them in their programs. Audience involvement is crucial to the success of any radio program

### 2.2.2 Uses and Gratification Theory

Uses and Gratification Theory (U&G) focuses on people's need, media choice and what people do with the media. Elihu Katz, Blumler, and Gurevitch (1974) stated that, the approach is concerned with the social and psychological origins of listeners' needs, which generate expectations of the mass media or other sources which lead to different patterns of media exposure ( or engagement in other activities), resulting in need gratifications and other consequences.

The theory was first imagined and used in an article written by Elihu Katz (1959), and it has five concepts about media audiences namely:

- Communication behaviour such as media use is typically goal-directed or motivated. Such behaviour is beneficial for people; as it has costs for people or societies.
- People choose and use communication sources and messages to gratify felt needs and desires. Media use is a means to gratify wants or interests such as seeking information to reduce uncertainty or to solve personal dilemmas.
- Social and psychological issues mediate communication behavior. Behaviour is a reaction to media only as sieved via ones social and psychological circumstances such as the potential for interpersonal interaction, social categories and personality.
- Media competes with other methods of communication for selection, attention and use. There are certain relationships between media and interpersonal communication for gratifying needs and wants.
- People are often more influential than media in media personal relationships and that Individuals are conscious of their reasons for information and entertainment; people use these motives as guides, as they actively seek out media messages to satisfy their needs. Consequently, the media favourites are not only explained by media content, but also by features of the audience and their involvement with the content.

An understanding of the relationship between the mass media and their addressees has been sought by many researchers in the 20th century. The “uses and gratifications theory” is an example of an approach to mass communication that falls under this. This convincing tradition in media research in its present form is credited to Elihu Katz, Jay G. Blumler and

Michael Gurevitch. The uses and gratifications theory supports that, instead of being passively affected by media messages, individuals establishing the media audiences actively choose and utilize media contents to satisfy their social and psychological needs and obtain personal gratification (Lucena, 2011). Though, reason for choice of program by listeners can be discovered using a wide range of theoretical frameworks, and whereas the uses and gratification approach is not the only the approach that can be used, the researcher felt that it gives a lot of helpful insight into this study.

### **2.2.3 McLuhan's theory of medium is message**

Marshall McLuhan was a Canadian scholar who proclaimed what he thought about the effects of the mass media. In contrast to other researchers, McLuhan didn't collect any research data, he never did experiments or surveys to test his ideas but his ideas about media influence have stirred discussion and analysis from media scholars for more than 40 years (Sparks 2010).

McLuhan's theory that the medium is the message meant different things to different people and some scholars have given up trying to understand what he meant. Griffin (2000) explains that McLuhan believed that a medium changes people more than the sum of all the messages of that medium. He further states that the core idea in McLuhan's theory is that the primary channel of communication changes the way people perceive the world. What McLuhan meant was that what really changed people the most was not the message in a communication medium but the medium itself (Sparks 2010)

In coming up with the theory, it was not lost on McLuhan that particular type of media messages have a specific effect on human attitude, feelings and emotions. Research studies support the notion that human behavior changes from processing messages. What he meant was that the dominant medium of any age dominates people (Griffin 2000)

This research study was informed by the fact that the medium shapes people's perception of messages and that people perceive media messages in different ways depending on the channel of communication. Radio is one of the most popular and widespread tools of communication in the rural areas where the majority of the population lives. This is because it is the most accessible and affordable mass media and it can disseminate important information to rural audiences. Through it they get entertained, receive the latest news and



enjoy listening to various programmes. The radio dominates the life of the rural people through its programming. In Kenya, 68% of radio listeners tune in to local language radio stations (Oriare, 2010). Many do not miss their favourite programmes because radio is portable and they can move with it wherever they go and listen to it as they engage in other activities. The farmer will cultivate his shamba as he listens to an agricultural programme. Without the medium the message will not be received.

McLuhan's theory posits that the medium through which content is communicated to the audience plays a crucial role in the way the content is perceived. The medium often shapes the audience perception of the content. This is true and can be illustrated using the location where this research study was carried out. In that location, there are two main vernacular radio stations that the audience listens to which are; EgesaFM and Minto FM,. Each of these stations has an agricultural program but the effects of the messages aired on the two stations will not be the same. The way the messages will be received and perceived by the audience will depend on which radio station broadcast it.

The medium is what determines how the message will be perceived supporting McLuhan's theory that the medium is the message. The effect of the message depends on which medium is trusted more by the audience as well as on which medium is more popular with the audience. A message coming from a radio station that is trusted by the audience will have more impact than one coming from a station that is less popular with the audience.

### **2.3 Conceptual Framework**

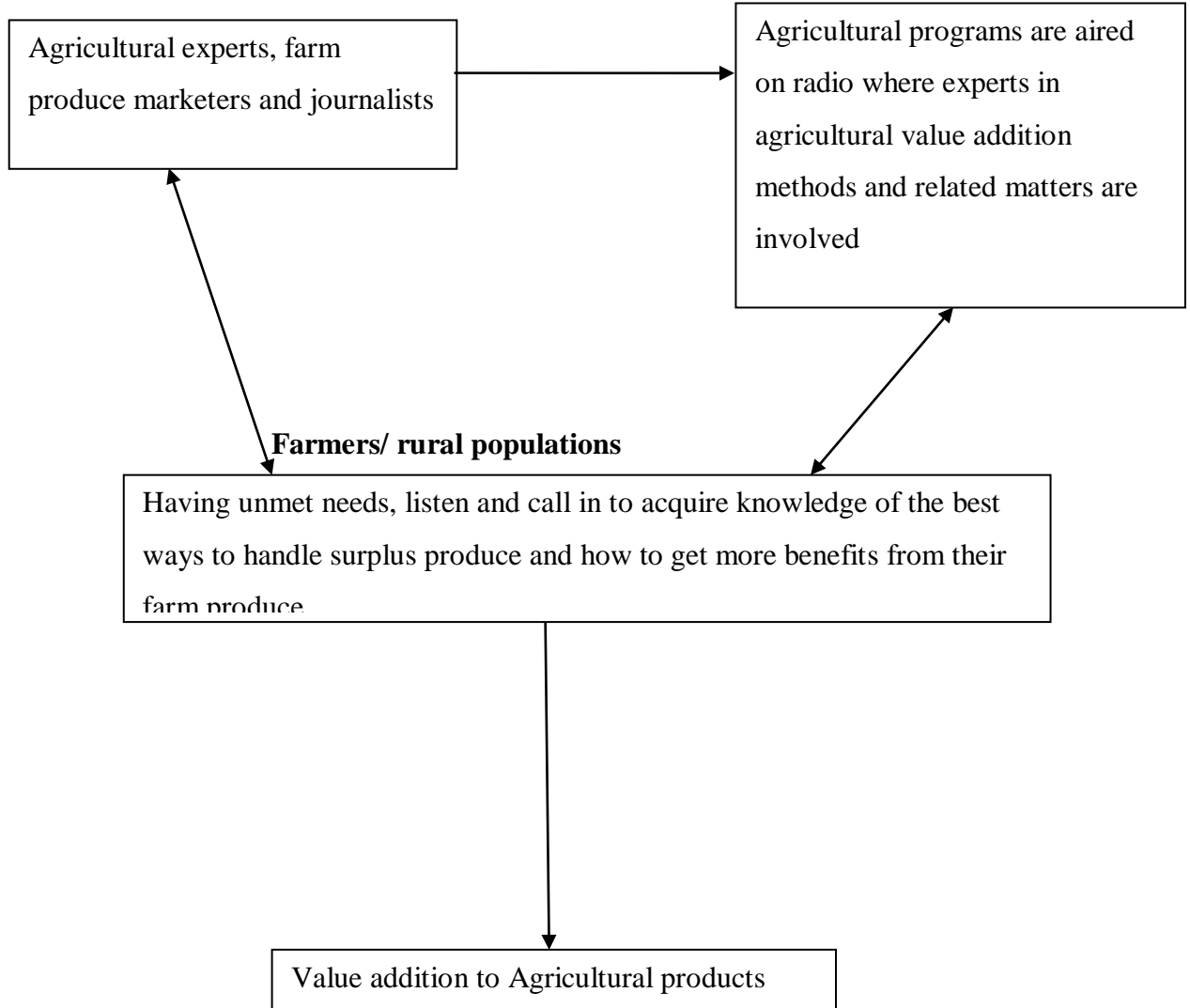
The concept of the diffusion of innovations Theory on how innovations diffuse to audiences and that of The Uses and Gratification Theory that people choose and use communication sources and messages to gratify felt needs and desires leads to definite relationships between the anticipated relationships amid the variables in the present study as defined with the aid of theoretical model below. Theoretical model are set of expected relationships, complementary explanations and justifications Allen, et al, (2008). The association between the variables present study is projected on the concepts of Uses and Gratification Theory.

The concept that Egesa FM programs influences farmers' adoption of value addition best practices makes radio programs (independent variable) and value addition to agricultural products (dependent variable). However, there are certain intervening variables that to some extent do not allow vernacular radio programming the independent variable to influence

farmers' adoption of value addition (dependent variable). The unit of analysis will be the individual who is reached through survey questions. Both primary and secondary data will be used.

### Experts on agricultural value addition

### Egesa FM radio program



**Fig. 2.3.1 conceptual framework**

Local language radio stations with the help of journalists, experts in agriculture and farm produce marketers come together to produce agricultural programs on various farming practices. Vernacular radio as a mass media will create awareness of new agricultural innovations through its programmes. Farmers are the target audience for agricultural programs on radio. The diffusion model discussed earlier in this chapter assumes that a proper combination of mass mediated and interpersonal communication strategies can move individuals from awareness of a new technology to adoption of the technology. This therefore means that farmers having heard the value addition information broadcast on radio will put

into practice hence value addition is achieved. The radio journalists use the best approach in their programs so as to move their audience from awareness to adoption of new farming technologies. Farmers who listen to the programs will learn new agricultural innovations firsthand and probably adopt them. They will become early adopters of the innovations. After this they may pass on the innovations to others who will adopt them, increasing the number of those adopting the innovations.

## **2.4 Literature review**

This section will explore the available literature on the topic under study. It reviews what has been written in relation to radio and agricultural development. It summarizes what is known in this area and highlights some case studies and previous findings on radio and agricultural development. The review is divided into four sub-topics namely: Mass media in development, concept and power of radio, Radio and agricultural development, radio as an extension tool for agricultural development and radio and participatory development.

### **2.4.1 Mass media in development**

Information plays a key role in agricultural development and production and their effective communication will help facilitate mutual understanding among farmers, agricultural scientist and extension workers (Agboola, 2000). According to Kaye (1995) good information improves decision-making, enhances efficiency and provides a competitive edge. Knowledge and information are basic ingredients for increased agricultural production and productivity. Information is a critical resource in the operation and management of the agricultural enterprise (Opara, 2008). Abbas et al. (2008) argued that lack of information adapted to local needs and lack of technical knowledge at farm level are the important factors responsible for this low yield.

Information is therefore considered as one of the most important resources in agricultural and rural development that assists the farmers to take decisions and appropriate actions for further development related to farming (Harris et al., 2001; Morrow et al., 2002 and Stefano et al., 2005). Mass media methods in agricultural information dissemination generally, are useful in reaching a wide audience at a very fast rate. They are useful as sources of agricultural information to farmers and as well constitute methods of notifying farmers of new developments and emergencies. They could equally be important in stimulating farmers' interest in new ideas and practices (Ani et al. 1997). Radio and television are the most effective tools in communication for the support of development (Hussain, 1997). TV can

provide an illiterate person valuable instruction and education in agriculture, health population control, sanitation and other aspect of his daily life (Rahman, 1999).

#### **2.4.2 The concept of radio**

The radio has an important function of informing, educating and entertaining the masses. As Denis & Defleur (2002) observe, it is a source for music entertainment and a means by which people receive the latest news. For some people especially those in the rural areas, radio is the only source of entertainment.

According to Myers (2008) one of the greatest advantages of radio compared to other media is that it is portable and can be listened to while performing other tasks. This means that listening to radio is not an exclusive activity and one can engage in other activities as they listen to their favourite programme. The radio has many other advantages over other mass media. Gough (1982) points out that, messages on radio are immediately received and so it can be topical and up to date eliciting immediate response from listeners. Other strengths of radio as a mass medium are that it does not privilege the literate and that it's particularly accessible in financial terms (Buckley et al 2008).

This means that even the poorest people in the community can be able to afford a radio set. Myers (2008) states that radio stations can be divided into four categories which are: state controlled public radio, privately owned commercial radio, community controlled radio and international radio. Kenya has a three tier broadcasting system comprised of state broadcasters, commercial broadcasters and community radio (Gathigi 2009)

Since the liberalization of the airwaves over ten years ago, many radio stations have come up in Kenya. A number of them broadcast in the two official languages that is English and Kiswahili while the rest broadcast in local languages. The radio has impacted positively in the lives of many people since its inception and as Denis & Defleur (2002) puts it, "radio's future seems secure since it's a flexible medium capable of responding to changes that may come in the future".

Radio has the following characteristics:

*Radio is local in nature*

McAnany (1973) posits that radio's local nature can be seen in the way it localizes rural development efforts. For example, it allows for the creation of local content that serve a relatively limited area with homogeneous language, culture and interests. Radio programming may also not only educate but reinforce local values that may be threatened by dominant groups that are anxious to develop a marginal area or group. Local stations broadcasting in local languages can contribute to the solution of local problems and provide a voice for the audience through a more appropriate feedback mechanism.

*Radio is interactive*

Jemal (2013) posits that because television strives to bring about almost every segment of a story with picture of the event, it does not give a chance for its viewers to use their imagination to draw the picture of the event in their minds. But radio involves and stimulates the imagination of the listener (Howard, 1982). Though "radio is a blind medium", it has enormous capability to stimulate the listener's imagination (MacLeish, 1999).

*Radio is pervasive*

McLeish, (1999) posits that the very term broadcasting indicates a wide scattering output covering every home, village, city, town and country within the reach of a transmitter. Radio signals go across mountains and oceans with no difficulties. Thus for some developing countries which are naturally mountainous and with very poor infrastructures, radio is the unsurpassed medium to reach the rural mass (Jemal, 2013:8). Radio goes into the home with no prior initiative, no payments and so on. It is merely a turn of the switch and closing of the eyes (Howard, 1982). MacNany (1973:8) asserts that presently, radio reaches all populations in a large variety of languages. MacNany however portends that even though the distribution of radio sets favours the urban areas, the diffusion of cheap transistor sets in rural areas is sufficient to guarantee coverage of most homes. And this makes radio a widespread phenomenon since its messages reach the most remote villages.

### *Radio is affordable*

Howard (1982) posits that radio has the potential to reach the whole population even the poor at little cost. “Radio is also the prime electronic medium of the poor because it leaps the barriers of isolation and illiteracy; it is the most affordable electronic medium to receive in” (Fraser and Estrada, 2001:23). Jemal (2013) posits that compared to television sets, radio receivers are inexpensive and they can be affordable to farmers who are accessed by neither telecast nor newspapers. Its affordability can be taken as a first step for its accessibility. Other things being the same, radio’s cheapness can be one of the main reasons to attract a sustainable audience, particularly in the rural areas. “Radio is much more pervasive, accessible and affordable” (Servaes, 2008).

McAnany (1976:6) has identified five strategies of utilization of radio in rural education and development. These strategies have been employed in developing countries either separately or in combination. Though radio offers excellent potential for development, especially in rural settings, the level of success or failure of these strategies has been determined by the presence or absence of some preconditions. The preconditions include the creation of conditions to enable radio to become a medium of dialogue and exchange of ideas that exist in the rural communities, as well as how the radio is used and for what purposes.

The following strategies are used in radio for education development:

### *Open broadcasting*

Moemeka (1981:40) argues that this is a strategy through which broadcast is directed to an unorganized audience. It is based on the assumption that a good message is capable of being accepted by the individual on his own, and that the best way to attract and hold a mass audience is to offer spontaneous and continuous vicarious satisfaction as well as education. There is a problem that is related to the use of this strategy which directly affects its usefulness while using radio as a tool for the education of the rural people in community development efforts. The problem is that “there is no interaction between the producers and consumers before programmes are planned, produced and broadcast” (Moemeka, 1981:44). This implies that radio programmes and their contents are decided, planned and broadcast by experts and journalists who are confined within the studio’s compound.

### *Instructional radio*

In this strategy, a radio medium is employed to bring about social change and development. Unlike the open broadcast strategy instructional radio is “directed to an organized learning group led by a person able to supervise and direct, and also induce feedback” (Moemeka, 1981:46). Moemeka further argues that Tanzania has used this strategy, calling it „Radio Study Group“ (RSG) in order to teach practical skills and civic responsibility to rural communities. The application of this strategy requires a structure for organizing listening and learning practices, provision of support materials, presence of monitors or teachers and some kind of assessment. The problem with this strategy is that it demands a relatively high investment; hence, its implementation on a wide scale is very doubtful. Tanzania has been able to operate successfully because it is a relatively compact country, and the government places high priority on rural community education.

### *Rural Radio Forum*

It is a strategy for using radio with discussion and decision for rural groups. The strategy involves regular weekly radio programs, often 15- 30 minutes presented to rural audiences (Moemeka, 1981). The programmes usually comprise rural news, answers to listeners“ questions, family advice, a talk and discussion. The groups usually comprising between 10- 30 listeners each listen to the programmes and discuss their contents under the guidance of a group leader on points raised. The leader then sends monthly reports to the source of the programme for review and possible solutions in subsequent programmes. One of the advantages of the rural radio forum is the follow up of a radio message with localized discussion and ensures positive commitments to agreed-upon decisions and subsequently local change (Moemeka, 1994). Rural Radio Forum (RRF) was started in Canada and then spread to India and to some countries in Africa and Latin America. The Forum had weekly or semi- weekly radio broadcasts which focused on suggesting innovations to the farmer and his family (Schramm, 1979). The study that was conducted in India in 1979 on 145 rural radio forums found out that forum members were in a better position to learn much more about the topic under discussion than non-forum members. Neurath (Cited in World Bank, 2007:27) “Radio Farm Forum as an agent for transmission of knowledge has proved to be a success beyond expectation. Increase in knowledge in the forum villages between pre- and post-broadcasts was spectacular, whereas in the non-forum villages it was negligible”.

### *Radio schools*

This strategy uses radio for rural community education. The audience of these radio schools“ is primarily illiterate rural adults. The basic aim of this strategy is to offer fundamental and integral education which goes beyond mere reading, writing and cognitive skills and tries to change the passive and independent attitude of the rural man, creating a deepening of „his sense of dignity and self-worth and turning him into a new man” (Moemeka,1981:53). This strategy has been successful in arousing the rural people to action, precisely because it identifies with rural population and its problems (Moemeka1994).

### *Radio and animation*

It is also known as the radio participating group, it “aims at promoting among local communities a trained cadre of decision leaders” (Moemeka, 1994:23). Programmes are made from recorded views and responses about a definite problem presented by some members of the listening public. After listening to the programmes, the participating groups discuss problems further, thus creating avenues for further responses from the public and subsequently eliciting some decision.

The assumption of this strategy is that no solutions to problems can be imposed on local communities from outside; that local communities must first of all arrive at a problem definition and then its solution on their own. In addition, community participation and social action is the goal and therefore feedback from the community is essential (Moemeka, 1981). This strategy which was developed from the French government“s efforts towards rural development in its West African colonies of Senegal, Benin, Togo and Niger was directed at inculcating new farming methods, diversifying agriculture, and improving the administration and management of co-operatives (Moemeka, 1981).

### **2.4.3 The power of radio**

The extent to which radio broadcasting has the power to provoke and sustain prejudice and violence has been debated since analysis of the propaganda campaigns of the first and second World Wars, (Lasswell, 1935). It is worth to note that it is often those who argue for the use of radio for promoting positive public behavior change (improved health, agricultural



practices etc.) who point to the power of radio in negative situations for instance in Rwanda; as 'proof' that radio 'works'.

During the late 1990s and early 2000s, as local radio stations started to proliferate in Sub-Saharan Africa, some of the positive development gains that this phenomenon entailed were documented. In terms of governance, for instance, community radio in Mali showed that it was able to prompt transparency on the part of local officials and started exposing many instances of bribery and corruption (Konaré, 2006). In terms of health and educational gains, evidence from Madagascar, for instance, has shown that knowledge about HIV/AIDS, safe motherhood and child vaccination is higher among local radio listeners (Metcalf et.al, 2007) and in Tanzania radio dramas have helped significant numbers of couples to adopt family planning methods (Rogers, et.al. 1997). Local radio can also act as a warning system in natural disasters, a messaging system for far-flung communities, a price-index for poor farmers, and a lifeline giving vital information in humanitarian emergencies. It has also proven its worth in terms of fostering community cohesion, from urban youth radio in Senegal to peace radio in Northern Uganda, to township radio in South Africa (Panos, 2007).

Radio is still the dominant mass-medium in Africa (Balancing Act 2008; BBC WST, 2006; RIA, 2005), with the widest geographical reach and the highest audiences compared with TV, newspapers and other ICTs.

The strength of rural radio as an extension tool is widely regarded to lie in its ability to reach illiterate farmers and provide them with information relating to all aspects of agricultural production in a language they understand. This does not mean simply reading technical information over the airwaves in local languages, but understanding the way farmers themselves discuss their problems in the community and providing relevant information in the local agro-ecological and cultural context. Extension services have been criticized both for failing to reach the majority of farmers in many developing countries and to communicate successfully with those that fall within range. Rural radio offers both the reach and the relevance to its listeners when the programmes are generated in a community-based and participatory fashion. It is easy to understand the appeal to listeners of having local issues discussed in the 'accent' of the local community. The challenge for international organisations such as FAO has been to use rural radio as an extension tool which can take technical information from the wider agricultural research community and translate it both literally and figuratively into the local language with the most appropriate 'accent' for the

target audience. This requires a shift away from simply delivering extension ‘messages’ and a move towards understanding the local farmers and their knowledge

Radio is by far the most accessible medium of communication in Kenya. According to the Kenya Audience Research Foundation (KARF) report of 2011, 95% of Kenyans regularly listen to the radio. As of September 2014, 114 FM radio stations were licensed to air (CAK, 2013)

The majority of these stations are privately owned while others are either state-run or community based local language stations. Even though many of these stations broadcast in English or Kiswahili, an increasing number are using local languages. This happens, as Shitemi (2012) observes, without state motivation and planning. Vernacular radio stations have grown exponentially since the licensing of the first one in 2000.

The demographic dynamics in Kenya came into play to give birth to the emergence of vernacular radio as soon as the airwaves were freed. A need developed to use the “officially ignored” indigenous languages spoken by the majority of those with lower levels of education or no education at all. Radio as opposed to print media which still required literacy or Television which would be quite expensive to establish, was best suited to use vernacular language.. To this largely rural and less formally educated part of the population, the official languages are secondary languages which are very remote from their immediate needs and daily living (Orao 2009).

A majority of Kenyans (67 per cent) still live in the rural areas where two dynamics exist: higher illiteracy levels and low levels of connection to electricity (less than 30 per cent on average according to Kenya’s Rural Electrification Authority). This makes this audience tend towards using radio, which is a cheaper gadget to acquire and power, as their main source of information. The low levels of literacy (KNBS, 2010), means these people need a radio medium that speaks in their mother tongue to put them on a par with the rest of the country as far as the information flow is concerned.

The mainstream media in Kenya for many years (as discussed earlier) largely used either English or Kiswahili in their broadcast. For this reason, it was not possible for the largely rural population to participate in public discourse and public affairs which are conducted in the official languages. The language handicap results not only from what James Orao, a tutorial fellow at the Department of Linguistics and Languages, German Studies Section, at

the University of Nairobi calls the Kenyan "Tower of Babel" with its more than forty indigenous

#### **2.4.4 Radio in the wider development context**

Bill and Melinda (2011:1) define agricultural development as the process of creating improvements in agricultural productivity in order to create social and economic ripple effects within communities. "With increased incomes, small scale farmers can better feed their families, send their children to school, provide for their health, and invest in their farms. This makes communities economically stronger and more stable". Agriculture is becoming increasingly information sensitive hence access to information has become a prerequisite and a valuable resource for development (Padre et al., 2003). In this context, information is needed to exploit opportunities in time, raise awareness about potential negative impacts of current choices and to get to know about opportunities and sustainable solutions (Leisa, 2002).

Chapman et al. (2003:23) posit that "due to its ubiquitous nature, radio has been proved to be an effective medium for social change and has been used to address issues related to education, health, population, economic, empowerment, peace building, environment, and human rights among others". In addition, Nakabugu (2010) argues that through radio, vital information for example on better harvesting methods, soil conservation techniques, post harvesting handling, use of improved seeds and timely planting can be passed on. Dissemination of such information along with new concepts and farming techniques can bring novel opportunities to the farmer (Retz and Hasbullah, 2010).

FAO (2003:67) points out that as long as it is the "preponderance for developing countries where most people reside in rural areas and are illiterate, radio is an invaluable medium that can deliver information to a large number of the population". The continuing importance of radio as an information medium was soundly confirmed at the 1996 FAO International workshop on rural agriculture in Burkina Faso. Among the workshop's declarations was fact that radio remains the most popular, accessible, and cost-effective means of communication for rural people. Similarly, Meyers (2008:24) observes that "local radio still performs the function of a community telephone kiosk in many isolated rural areas and radio's immediacy, portability, and ubiquity make it an invaluable tool during emergencies and humanitarian aid context".

According to Mtega (2012:1), information is a vital resource alongside land, labour, capital and skills. People need information for their day to-day activities and for the development of their environment and their selves. Mtega further argues that information is the cornerstone of successful socio-economic development because it plays a key role in decision making. Reiz and Hasbullah (2010) define information as the gap in a person's knowledge, that when experienced at the conscious level as a question, it gives rise to a search for an answer. They argue that after identifying the information needs, the information user embarks on a search for information from possible sources in order to solve their problems.

Meyers (2008) posits that the recent explosion in mobile ownership has been a significant advantage for radio. Radio presenters announce their phone numbers over the air and invite listeners to phone-in or send in short messages with comments on the news, questions, debates, requests among others. Meyers (2008) further argues that in some instances, audiences are able to give feedback without even having to pay for a call, by means of 'beeping' the station and being called back. As the farmers themselves participate in the radio programmes, they become more interested and effective because of the feeling of the ownership (Khanal, 2011). "Radio gives farmers an opportunity to interact with each other and other relevant authorities such as the extension workers, crop and animal experts and so on through format like talk shows, phone-in sessions and the on location broadcasts" (Retz and Hasbullah, 2010:33).

Ani (2001) defines extension as a communication and a process whereby various participants and stakeholders are linked in order to exchange information necessary for sustainable development. Nyaresa (2012:494) posits that extension services that exist do not satisfy the agricultural information needs of the farmer because: there are not enough extension workers; they do not have the means to reach the all households; they lack communication skills to interact effectively with peasant farmers; and they lack the motivation to carry out their work. The strength of rural radio as an extension tool lies in its ability to reach rural farmers and provide them with information relating to all aspects of agricultural production and in a language they understand (Chapman et al., 2003). For example, according to FAO, cited in Moemeka (1994), in a study on the impact of radio in Pune, India, the listener who listened to radio had more knowledge about modern methods of farming than those who did not listen.

As we have seen above, the use of radio to develop farm communities is not unique. Moemeka (1994) argues that the first experiment using the "Farm Forum" (FF) was in

Canada during the Second World War. The Farm Forum involved organized groups of farmers who met in their homes to listen to broadcasts, discuss their problems and take cooperative action to address them. The Farm Forum idea was taken up by India in 1949. Ghana in 1961 and in 1973, similar schemes were operational in Zambia, Malawi, Senegal and Nigeria. Radio listening and radio campaigns were the major activities. Since then, FAO (2005) argues that radio Farm Forum has functioned as the agent for the transmission of knowledge and information related to agriculture. “It has also contributed to strengthening social unity, enhancing communicative ability, giving knowledge about locality, preserving the environment and solving problems that arise in the communities” ( FAO, 2005:37).

In addition, radio has been used as an educational tool in both development and literacy programmes for the reason that it is a “universal and versatile medium of communication that can be used for the benefit of society (Okigbo, 1996). Okigbo further argues that the use of radio as a pedagogic and educational tool has been motivated by its perceived strengths such as the following: “It is based on oral tradition, it appeals to and relies on the imagination of the listener, it crosses space and time without limit, it can evoke images that are impossible in real-life, and it is a personal medium (in being a companion that can reach millions at once with the power to speak to each one individually)” ( Okigbo, 1996:35).

According to Ozowa (1995), marketing refers to all business activities involved in the movement of commodities from production to consumption. The farmer’s marketing needs are those that enable him to make rational and relevant decisions about the market trends which are necessary in assisting farmers to plan their market products in order to avoid a glut. These needs include: Information on product planning, the current market prices of commodities, sales timing and information on improved marketing practices. As Okunmadewa (2011) points out, the marketing infrastructure is the key to ensuring remunerative prices for agricultural produce. With market information, the farmers are in a better position to obtain higher prices for their farm products. According to Okunmadewa, it is assumed that the higher prices are expected to translate into higher margins and improved household welfare in the form of increased rural income. It is also assumed that the negotiating power in determining prices for their produce could be improved through prompt dissemination of price information.

Girard (1999) posits that local radio stations in rural communities often broadcast the prices paid in by various national markets for agricultural products that are produced in the

community. Girard argues that this enables farmers to grow crops that will provide them with the best returns, to sell their produces in markets that pay well and to avoid being defrauded by wholesale buyers and speculators.

Transparency and the increase of information flow make up the fifth key impact of radio in agricultural development. Mefalopolous (2008) posits that narrowing the information gaps is central to economic growth and improved welfare. This is because information problems lead to market failures and impede efficiency and growth which are often at the core of the difficulties that poor people in developing countries encounter in their daily struggle to survive and improve their lives. Transparency increases trust, consensus and plays a critical role in reducing opposition to reform. Furthermore it is helpful in circumstances where there is high degree of public distrust between the experts and the stakeholders.

The provision of information and skills has gained popularity in the quest to empower communities with Community Radio as a unique and effective tool. Chapman et al (2003) reported that the growth of rural radio stations reflects both the improvements in information technologies and the shifting of development paradigm towards a more participatory style of information and knowledge transfer. Kumar (2004) identified radio as an avenue for participatory communication and as a tool relevant in both economic and social development.

Radio can play a significant role at the grass roots level for rural development. For instance, issues of poverty, agriculture, gender inequality, education, social problems among others could be the focus for programming. In exploring the importance of sharing information locally and the opening up of wider information networks for farmers in Northern Ghana with reference to vernacular radio programmes, Chapman et al (2003) found that rural radio is effective in improving the sharing of agricultural information by remote rural farming communities. Radio in this regard provides a set of participatory communication techniques that support agricultural extension efforts by using local languages to communicate directly with farmers and listeners' groups. Using the Most Significant Change (MSC) process, Walters et al (2011) assessed the impact of community radio in Indonesia and concluded that effective radio activities can make a significant change in a community's life. The MSC methodology has its origins in community health development debates. It has recently been applied to community radio impact evaluation. By the MSC process, community members

provide feedback in the form of stories describing the desirable change in their life as a result of the activities of the radio.

Radio stations set up in rural areas have a predominantly agricultural clientele. Whether those who run them are pursuing the development objectives of the station's funder or simply aiming to entertain, they are aware that agricultural issues are very high on their listeners' priorities. However, agricultural extension systems have only shifted to more participatory approaches relatively recently and so much of their early efforts used the top-down technical scientific information approach which tended to ignore the diversity of both local agricultural problems and the farmers' existing knowledge and skills. Other social development sectors, such as health and education, have been more effective, using rural radio to communicate messages to a target community or a specific demographic group.

In many areas radio stations have become highly valued for interacting with specific disadvantaged groups and for handling complex social problems. Youth radio, for example, has emerged as a powerful tool for international organisations promoting the UN Convention on the Rights of the Child, encouraging children to participate in and produce programmes on issues that are important to them. The Hatemolo Radio Programme in Nepal encourages disabled children to share their experiences and produce radio programmes about them to encourage others. The children arrange the programme schedule, develop ideas and scripts, and produce the shows (Communication Initiative, 2002).

#### **2.4.5 Radio and participatory communication**

In order for agricultural programmes to be effective, the producers should involve farmers in their production so that they can use the programs as a platform to address agricultural issues that affect them. Effective communication in a development process cannot be one way because it requires feedback and continuous exchange of information between partners and interest groups, communities and official entities (FAO 2006).

Strampickal (2006) explains that the term 'participatory development communication' is often used to draw attention to an emphasis on two way communication processes, and to distance them from one way communication approaches. He further observes that participatory communication gives preference to horizontal approaches that encourage dialogue centered on problem analysis and a search for solutions as well as bottom up approaches that aim to raise the awareness of decision makers.

Chadra (2004) observes that for more than fifty years radio has been the most appealing tool for participatory communication and development. He further states that radio has been instrumental for social change and has invented participatory communication as we know it today. The first participatory radio to appear in October 16th 1947 was radio Sutatenza in Colombia. The station was established by a catholic priest and it had two main objectives which were: to broaden the Christian doctrine to poor farmers and to teach skills that would contribute to community development.

Servaes (2002) presents the participatory model of communication whose main characteristics are: that it sees people as the controlling actors or participants for development see people as the nucleus for development and emphasizes on the local community rather than the nation state. This implies that the people are at the center of the development process and are expected to actively take part in development programmes.

Participatory approaches are known to be effective methods in the transfer of agricultural knowledge to farmers. A case in point that proved successful was a participatory radio campaign carried out in five African Countries by Farm Radio International (Farm Radio Report 2011). The five African countries included Uganda and Malawi. Some of the key findings of the report were that participatory radio campaigns have unprecedented success in motivating smallholder farmers to take up improved farming practices.

In communities where farmers were actively engaged in producing the campaign 39% of the farmers adopted the improved farming practice featured in the campaign. In communities where farmers had no active involvement in the campaign only 21% took up the improved farming practice. This means that if local stations involve the audience more in the production of Agricultural programs, then they may easily take up improved farming practices featured in the program. By participating in decision making over what content should be featured in the program the farmer in essence owns the program and feels a part of it.

The other key finding of the campaign was that participatory radio campaigns encourage farmers to try something new, and help them become knowledgeable about improved farming



practices. The campaign shared a great deal of information about new agricultural practices from experts and experienced smallholder farmers. The more frequently the farmers' listened to the radio programs the more knowledge they gained. The campaign found out that all types of radio stations can produce effective campaigns if they have proper training and support. This is a challenge to non-governmental organizations to partner with local radio stations with wide outreach and those that are trusted by farmers so as to reach as many smallholder farmers as possible with information that will help them improve agricultural practices. Farm Radio International partnered with community. Commercial, associative and public radio stations for the campaign.

#### **2.4.6 Radio in agricultural extension**

The media have an information function that makes them play a crucial role in development. As (Chadra 2004) points out, 'media can play a much greater role in enabling people to take control over their own lives, in enabling people and societies to set their own agendas in relation to political, economic and social development; and in particular the voices of the economically and politically marginalized to be amplified and channeled to mainstream public and political debate'. Srampickal (2006) echoes the same by positing that media such as radio, television, print and the internet can provide information creating a clear understanding of what development is and can inform a large mass of people about developmental concepts, programs and issues. He further states that the mass media provide a vast reservoir of knowledge and information serves as a tool for development and complements other development approaches.

The broadcast media have a unique role to play both in enabling governance and accountability and in giving voice to poor and marginalized communities (Buckley et al 2008). Rural communities in Africa are in most cases marginalized and have no access to information that can enable them to participate in debate or express their views on issues that affect them directly.

Without access to information on improving agricultural practices, rural farmers lack knowledge for them to take effective action. Festus T in (White 2008) argues that, there are many causes to insufficient agricultural production, but there is increasing consensus that lack of communication has been one of the central problems. Communication through the radio on best agricultural practices may fill this gap.

The radio has proved to be one of the most effective mediums in promoting agriculture and development in rural areas (Hazbullah, 2010). Rural communication is an interactive process in which information, knowledge and skills relevant for development are exchanged between farmers, extension/advisory services and information providers either personally or through media such as radio, print and more recently information and communication technologies (FAO, 2006). This implies that radio can be used to pass on development messages to rural people. The aim is to put rural people in a position to have the necessary information for informed decision making and the relevant skills to improve their livelihoods (ibid)

Local and community based media have a particular role in enabling rural communities to access information in their local languages. Regular transmission of radio programmes related to agriculture gives valuable information about new farming methods (Ekoja, 2003). As the farmer receives useful information on the radio, they are able to apply the new techniques gradually improving farming methods (ibid)

There are many success stories where radio has been used to enhance agricultural production. Radio Madanpokhara in Nepal broadcasts across a rural agricultural community in which few people have access to electricity or a telephone and it has become the principal means of local communication and discussion of local development (Buckley et al 2008). According to an independent listener survey, the radio contributes to improved agricultural techniques and improves access to news and information.

In Kenya, The Kenya Broadcasting Corporation has radio stations that cater for particular regions and broadcast in local languages. Some of these stations air programmes that have useful development information. In Senegal, Senegalese state radio carries better quality development programmes and caters well for local languages compared to the under-resourced community stations (Myers 2008). In Egypt, the state radio and television are well known for their agricultural and health information.

In a research study carried out in *Kieni west, Nyeri County* on listeners' radio listening habits, farmers reported that they listen to agricultural programmes on the Kikuyu Vernacular stations because they provide practical information that they require in their daily farming

activities (Gathigi 2009). These agricultural programmes addressed various issues such as different diseases that affect crops and animal husbandry. In Nigeria, a study that was carried out to determine farmers' adoption of improved agricultural technologies disseminated through radio programmes in Enugu State found out that co-farmers and farm broadcasts were the major sources of information to many farmers (Agwu et al 2008). 96.3 percent of the farmers accepted radio as a useful source of information on improved agricultural technologies. The radio farm programme enhanced the extent of adoption of six technologies which included modern land preparation and planting of early season crop.

In the republic of Benin radio was used to educate rural peasant farmers in the 1960's, using small listening groups called 'Radio Clubs, formation of national and departmental committees, use of village chiefs as presidents of Radio Clubs and use of animators as group leaders (Thompson 1987). Group discussions were carried out after listening to the agricultural radio broadcasts. After one and a half years of experimentation, the administration of the agricultural radio programs and organization of the radio clubs was reformed. Messages from the radio clubs and questions and answers of interest to the development of agriculture formed important themes for the programmes. A year later, a national seminar was organized to evaluate the achievements of the agricultural radio and the results revealed that rural radio is an effective instrument of information and education among the rural peasants (ibid)

Radio can play a significant role as a tool in agricultural extension to facilitate transfer of knowledge and good farming practices to farmers. Extension is the oldest method of using communication to generate development (Moemeka in Okigbo 1996). In Kenya there are few extension officers in the counties who serve farmers. The ratio of farmers to extension officers is 753:1 (Sanga,2013). The National Extension Policy was established due to the poor performance of the agricultural sector in comparison to its potential (NAEP 2001)

Melkote (2001) observes that, extension had long been and continues to be regarded as a logical and systematic method for disseminating productive and useful knowledge and skills to receivers. Radio based agricultural extension services have been introduced in various parts of Africa and the World in order to teach farmers various agricultural practices.

Agricultural extension programmes are prepared by trained community radio agricultural extension officers. Their role is to visit farmers in the community, discuss their problems and priorities, and then prepare a series of discussions with local experts, a drama or a combination of techniques including interviews with farmers in the field. The programmes are felt to be far more accessible to local farmers if they can hear themselves or their neighbours discussing the issues directly on the radio.

Norrish (1998) has observed that, 'it is no longer considered good enough for media professionals to isolate themselves from the audiences they are supposed to serve.' In order to achieve a level of farmer participation the radio extension officers have to spend at least 12 days a month recording out in the villages, spending the rest of the time editing in the studio with the producer, tracking down specialists from the district offices of the Ministry of Agriculture, regional universities and local NGOs, and researching the programme topics.

Regular transmission of radio programs related to agriculture gives valuable information about new farming methods. Radio transmission is quick and reaches to a wider population. As the farmers receive useful information from the radio, gradually they bring change in farming method applying new techniques (Ekoja, 2003, p.21). Information and knowledge are two significant factors for rural development. The knowledge of locality further assists the farmers. Dissemination of information along with new concepts and farming techniques can bring novel opportunities to the farmers (Mohammad Retz Nazn and Hasan Harbullah, 2010, pp. 13-20). The study done by Jenkins and his contemporary in northern California has shown that the mass communication has provided much useful knowledge related to agriculture and the experience was quite meaningful. Radio has been proved as the important tool for the enhancement of agriculture in the rural area.

In countries, radio is the powerful and effective medium to project the information and knowledge related to agriculture. (Nakabugu, 2001, FAO, 2001) According to Sharma (2008), radio is the reliable medium that can cover wider area and can reach to the large number of people. The strength of radio as the medium of communication is that it is cost effective in terms of transmission, presentation and portability.

Radio can be useful medium to educate farmers if it appeals them with new programs having modern agricultural technologies. However, the literacy of farmers is important to understand such programs and apply them appropriately (Mohammad Reza Nazari and Abu Hassan

Hasbullah, 2010)As the rural farmers themselves participate in the radio programs, they become more interesting and effective because of the feeling of the ownership. The message and information easily gets through. Important information related to agriculture can be provided using radio. Nakabugu (2010) further writes: Information on better farming methods, improved seeds, timely planting, agro-forestry, better harvesting methods, soil conservation, marketing, post-harvest handling and diversification. He states that rural radio gives farmers an opportunity to interact with each other and other relevant authorities e.g. extension workers, crop and animal experts through format like live talk shows, phone in programs and on location broadcasts. He further adds, "Since Rural radio is community based, it can be used to mobilize people towards community development work as construction of valley dams, protected wells and immunization of animals".

The international organizations like United Nations Children's Fund (UNICEF), United Nations Educational Scientific Cultural Organization (UNESCO) and Food and Agricultural Organization (FAO) have been using radio for the development in respective fields since 1960. (Chapman, R. et. al, 2003) Chapman (2003) further writes about rural radio: The strength of rural radio as an extension tool is widely regarded to lie in its ability to reach illiterate farmers and provide them with information relating to all aspects of agricultural production in a language they understand. This emphasizes that rural radio, as a tool of agricultural development and rural development should aim to bring transformation in the livelihood of the farmers by providing useful information.

Chapman, R. et al (2003) note that rural radio can be used to improve the sharing of agricultural information by remote rural farming communities. Participatory communication techniques can support agricultural extension efforts especially using local languages and rural radio to communicate directly with farmers and listener groups. About his study on the impact of farm radio in Pune, India, Paul Neurath (1959, 1960) remarks that the listener that listen to the radio have more knowledge about modern methods of farming than those who do not listen. The study shows that Farm Radio Forum has functioned as the agent for the transmission of knowledge and information related to agriculture (FAO, 1956, 1959).

The study by CEDA (2001) on the impact of agricultural programs transmitted by Radio Nepal mentions that such programs have helped the farmers to improve the farming methods. The farmers have received the agricultural programs transmitted by Radio Nepal and Nepal Television for information and knowledge. It was found that the farmers have listened with

enthusiasm the agricultural programs like Sukrabarko Budhi Aamai (The Old Mother on Friday), question answer on Friday, veterinary series on Tuesday, discussion on Thursday and farming program on Sunday.

The first and foremost role of radio education is to help the farmer accept new agricultural technology for obtaining higher yields and changing the age-old concept of low yields : this is being done remarkably well, as is evident from the fact that new technology, in general, has been accepted by the farmers of different categories . Their willingness to augment their farm income by adopting sophisticated improved agricultural practices to be regarded as a most remarkable change in their behavior. In our context, radio can function as a tool for dissemination of reliable information related to agriculture to bring change in the farming methods thereby bringing economical transformation in the country.

#### **2.4.7 Vernacular radio**

Radio is by far the most accessible medium of communication in Kenya. According the Kenya Audience Research Foundation (KARF) report of 2011, 95% of Kenyans regularly listen to the radio. As of September 2014, 114 FM radio stations were licensed to air (Communication Authority of Kenya, Phone communication).

The majority of these stations are privately owned while others are either state-run or community based local language stations. Even though many of these stations broadcast in English or Kiswahili, an increasing number are using local languages. This happens, as Shitemi (2012) observes, without state motivation and planning. Vernacular radio stations have grown exponentially since the licensing of the first one in 2000.

The demographic dynamics in Kenya came into play to give birth to the emergence of vernacular radio as soon as the airwaves were freed. A need developed to use the “officially ignored” indigenous languages spoken by the majority of those with lower levels of education or no education at all. Radio as opposed to print media which still required literacy or Television which would be quite expensive to establish, was best suited to use vernacular language.. To this largely rural and less formally educated part of the population, the official languages are secondary languages which are very remote from their immediate needs and daily living (Orao 2009).

A majority of Kenyans (67 per cent) still live in the rural areas where two dynamics exist: higher illiteracy levels and low levels of connection to electricity (less than 30 per cent on

average according to Kenya's Rural Electrification Authority). This makes this audience tend towards using radio, which is a cheaper gadget to acquire and power, as their main source of information. The low levels of literacy (KNBS, 2010), means these people need a radio medium that speaks in their mother tongue to put them on a par with the rest of the country as far as the information flow is concerned.

The mainstream media in Kenya for many years (as discussed earlier) largely used either English or Kiswahili in their broadcast. For this reason, it was not possible for the largely rural population to participate in public discourse and public affairs which are conducted in the official languages. The language handicap results not only from what James Orai, a tutorial fellow at the Department of Linguistics and Languages, German Studies Section, at the University of Nairobi calls the Kenyan "Tower of Babel" with its more than forty indigenous

Though there has been an increase in the number of radio stations able to cover a huge geographical area, it has not necessarily brought about a corresponding increase in social change (Schramm, 1964). Language applied to the mass media may have been an impediment to rural development. This could be because of failure to recognize African indigenous languages as official language. With the coming of colonizers, they partitioned the continent and promoted their culture through enforcing their own languages on indigenous people. The trend continued even after independence with the successive governments claiming that making indigenous languages official would divide the nation along tribal lines. In Kenya and Tanzania, Kiswahili was made a national language even though, especially in Kenya, majority of people could not communicate using it (Orai; Musau, 2009).

For effective communication to take place, Mwakawago (1986) observes that analysis of the setting should be done for example in the developing countries rural areas in order to get a clear perspective of the subject. This analysis should include language and culture of the people that a communicator wishes to communicate to. In most parts of the African continent, as Orai (2009) observes, the "officially ignored" indigenous languages are spoken by the majority of those with lower levels of education or no education at all. This is collaborated by FAO, 2006 report indicating that 82 percent of the world population is illiterate.

Language barrier has seen the country fail to meet its objectives even after spending billions of shillings on campaign messages on behavior change on different issues among them agriculture. Orao (2009) says that the official languages used in campaigns are secondary languages which are very remote from immediate needs and daily living of the largely rural and less formally educated part of the population. This is true as Moemeka (1985) observes that 'any communication message which completely ignores the values that underlie the context in which the people communicate, cannot produce the attitude and behavior changes necessary for rural development'. However this changed in most developing countries since the liberalization of the mass media in the 1990s. Ogola (2011) observes that the widespread disillusionment with the mainstream news media, the depoliticization of the new urban FM radio, and other factors provided an environment conducive to the rise of local-language in Kenya. The success of Kameme FM, a vernacular station introduced in 2000, prompted the emergence of other vernacular stations including Ramogi FM broadcasting in dholuo, Inooro FM in kikuyu; Musyi FM in kikamba; Mulembe FM in luhya; Kass FM in Kalenjin among others.

Currently, most of the communities in Kenya have more than one commercial vernacular station serving them in a language they can identify with. The use of the local language and the airing of local language programs give considerable prestige to the local/regional popular culture by publicly recognizing the dignity of its medium of expression. The vernacular mass media, therefore, play a significant role in shaping language pride; reinvention and preservation of community traditions, culture and identity and in the process bring these communities in touch with various socioeconomic innovations (chemwaina, 2014; Lekgoathi, 2012; Oriare et al., 2010; Orao, 2009; Suryadi, 2005).

Radio is by far the most accessible medium of communication in Kenya. According the Kenya Audience Research Foundation (KARF) report of 2011, 95% of Kenyans regularly listen to the radio. As of September 2014, 114 FM radio stations were licensed to air (Communication Authority of Kenya, Phone communication).

The majority of these stations are privately owned while others are either state-run or community based local language stations. Even though many of these stations broadcast in English or Kiswahili, an increasing number are using local languages. This happens, as Shitemi (2012) observes, without state motivation and planning. Vernacular radio stations have grown exponentially since the licensing of the first one in 2000.



The mainstream media in Kenya for many years (as discussed earlier) largely used either English or Kiswahili in their broadcast. For this reason, it was not possible for the largely rural population to participate in public discourse and public affairs which are conducted in the official languages. The language challenge results not only from what James Orai, a tutorial fellow at the Department of Linguistics and Languages, German Studies Section, at the University of Nairobi calls the Kenyan "Tower of Babel" with its more than forty indigenous languages but also the need to address a community's specific information needs

According to the Communications Authority of Kenya (CAK), there are over 30 stations broadcasting in languages other than English and Kiswahili. These include; Ramogi FM (Dholuo), Inooro FM and Coro FM (Kikuyu), Mulembe FM (Luhya), Musyi FM (Kamba) and Kass FM (Kalenjin), just to mention a few. Eleven of them are run by Royal Media Services (RMS), a privately owned media group; Kenya Broadcasting Corporation (KBC), a public broadcaster, runs five stations nationally and another seven regionally.

The vernacular radios are especially popular in rural areas, with a majority of listeners being older than 30 years (KARF, 2011). In the Central and Lake Regions three local language stations rank among the five top stations; in the Nairobi region it is one out of five. Countrywide, five of the ten most popular Kenyan radio stations broadcast in vernacular languages (Synovate, 2011). In interviews conducted by the Media Council of Kenya in 2011, editors and owners of vernacular radio stations emphasized the fact that local language programmes play an essential role for the development and participation of rural communities. This is especially important since a significant number of people based in rural areas do not communicate in Kiswahili or English proficiently. Shitemi (ibid) further states

“The ever- increasing grassroots endeavours as seen in language use in locutional, print and electronic media, challenges the lack of clear policy and planning on the part of the Kenyan government. This uprising is an illustration of the desire to break away from a linguistic prejudice against indigenous languages long entertained and propagated from the colonial legacies on one hand and the rise to the occasion of the prevailing current era of information and communication technology”. P. 55

In Kenya, the broadcasting environment comprises a mix of commercial/ private and public/community radio. This is a comparatively new development emerging from a tradition of state monopoly of airwaves. The radio tends to have the widest circulation within

communities in Kenya (Mbeke, 2008) Whereas radio has very many positive impacts as mentioned earlier, these strengths have been used to promote the narrow selfish interests of the ruling class and the rich who own the media outlets. This does not have to be the case however. There is need for vernacular radio to be objective and balanced when reporting on various issues. The positive roles of radio in Kenya and other African countries in general cannot be underestimated in achieving national cohesion and integration.

During the election campaign in 2007 and the subsequent post-election violence (PEV), vernacular radio stations came under scrutiny for disseminating dangerous propaganda and hate-speech through their live talk-shows and call-in programmes (Kriegler Report, 2008). The Kenya National Commission on Human Rights (KNCHR Report, 2008) summarized the role of the vernacular media in the post-election violence as follows:

“The media, and particularly local language media, influenced or facilitated the influencing of communities to hate or to be violent against other communities. Radio stations broadcasting in vernacular language were culpable in this respect. Live phone-in programmes were particularly notorious for disseminating negative ethnic stereotypes, cultural chauvinism and the peddling of sheer untruths about the political situation or individual politicians.”

The Commission of Inquiry on Post Election Violence (Waki Report, 2008) agreed with the human rights report observing that victims of PEV: recalled with horror, fear, and disgust the negative and inflammatory role of vernacular radio stations in their testimony and statements to the Commission.

The role of vernacular radio stations was tarnished during and after the PEV in 2008 as mere mouth-pieces for ethnic hatred. However, in its policy briefing paper of 2008 the British Broadcasting Corporation international charity World Service Trust pointed out the positive role that some of the FM stations had played in the aftermath of the PEV in 2007/2008: “More recently, most local language stations appear to have been playing an important role in calming tension and promoting dialogue.”

It cannot be denied that Kenya’s local language radio stations played and still play a crucial role in influencing decisions and shaping emotions within their audiences. It is for this reason that the researcher seeks to find out the influence of Egesa FM radio programs on the value addition practices of farmers in Nyaribari chache Sub-county.

## **2.5 Research Gap**

The role of radio in development especially in empowering rural communities through agricultural development has been discussed by many researchers. Their findings indicate that there is a significant change brought about by radio agricultural programs, findings indicate, adoption of better farming methods, increased agricultural produce. The role of a local language media has not been given attention when discussing radio and development furthermore, much of the research focuses on increasing agricultural produce. The question is, after employing better farming methods and increasing yield, what next? It is important to note that, high agricultural produce does not translate into high returns on produce. The researcher therefore feels the need to find out the impact Egesa FM programs on the value addition practices of farmers in nyaribari chache Sub-county.

## **CHAPTER THREE**

### **RESEARCH DESIGN AND METHODOLOGY**

#### **3.1 Introduction**

This chapter describes the methodology the researcher used in conducting this research and sought to examine the procedure that was used in collecting data so as to solve the aims, objectives and the research questions in this research. According to Chakraborty (2009) ‘research is a human activity based on intellectual investigation and is aimed at discovering, interpreting and revising human knowledge on different aspects of the world’. The research activity follows a certain structure and the methodology is a part of the structure. The methodology section in a research study explains the research design and the methods to be followed in conducting the research. These will include the data collection methods, the sampling technique and how data is to be analysed and interpreted.

Kothari (2003) says that research methodology is the study and search of knowledge through a systematic method consisting of enumerating the problem, formulating the hypothesis, collecting the data and facts, analyzing the facts and deriving conclusions toward the problem under study.

This chapter therefore highlights the various procedures of obtaining data and reviewing the information collected.

#### **3.2 Research Design**

According to Kasomo (2007), research design means the general strategies or plans of work to be followed in collecting data. A case study approach was adopted since one vernacular radio station was selected for the research. The research design that was used in this study was the descriptive research design that sought to identify the influence of Egesa FM programs on the value addition practices of farmers. Mugenda and Mugenda (1999), observe that descriptive research is appropriate because of its specific nature and the fact that it facilitates a general understanding and interpretation of the problem. It was used to obtain information concerning the state of the phenomenon to describe what exists with respect to the variables or conditions in a situation. The issues of this study being the influence of Egesa FM programs on the value addition practices of farmers in Nyaribari Chache Sub-County was thus aimed at addressing the essential questions in this research

This study focused on the impact of Egesa FM radio programs on value-addition to agricultural products among farmers. The correspondents to the study were farmers who are regular listeners of Egesa FM in Nyaribari Chache Sub-county.

### **3.3 Methodology**

According to Chakraborty (2009) 'research is a human activity based on intellectual investigation and is aimed at discovering, interpreting and revising human knowledge on different aspects of the world'. The research activity follows a certain structure and the methodology is a part of the structure. The methodology section in a research study explains the research design and the methods to be followed in conducting the research. These will include the data collection methods, the sampling technique and how data is to be analysed and interpreted.

Kothari (2003) says that research methodology is the study and search of knowledge through a systematic method consisting of enumerating the problem, formulating the hypothesis, collecting the data and facts, analyzing the facts and deriving conclusions toward the problem under study.

#### **3.3.1 Target Population**

Mugenda & Mugenda (2013) describes target population as a complete set of individual cases object with some common characteristics to which researchers want to generalize the results of the study. According to Berge(2011) study population is the larger population to which the researcher would wish to generalize the results of the study and to which research focuses on as also noted by (Kothari, 2004). In this study, the target population was all the farmers in Nyaribari Chache which was approximately represented by the households in the Sub-County which amount to 28825 according to the latest census report. Accessible population on the other hand refers to the set of subjects from which the sample of the study is to be derived. Therefore, the researcher for this study selected two administrative wards that was reflective of the qualities of the entire sub-county from which the sample was drawn. This wards ware Kiogoro ward with 2910 households representative of individual farmers and Keumbu ward with 3338 households.

#### **3.3.2 Sample size and Sampling method**

A sample is part of the largest or accessible population that has been procedurally selected to take part in a research process. Mugenda and Mugenda(1999) define sampling as a process by which elements are selected as representatives of the total population for study in a way

that the selected sample was assumed to represent the larger population from which it was picked.

Purposive technique allows the researcher to pick units having qualities desired for the study. This technique was used to pick wards that had farming activities (poultry, fish, vegetable, livestock, crops and fruit farming) and climatic conditions that are reflective of the entire Sub-County. The wards having these qualities were Kiogoro and Keumbu, the sample size was determined by Krejcie and Morgan table after which a sample for each ward was proportionately calculated upon which questionnaires were administered to owners of households who are farmers.

The number of farmers in Kiogoro ward was 2910 while those of Keumbu were 3338 giving a total of 6248. The sample size for this study using the Krejcie and Morgan table is therefore 364 individual farmers, the researcher used proportionate sampling to get a representative sample from each ward; with 171 and 193 representing Kiogoro and Keumbu respectively. Key informants in the agricultural sector including the agricultural extension officers in the two wards, the assistant producer of programs at Egesa FM who is also the producer of the agricultural documentary were purposively identified and interviewed.

$$6248=100$$

$$2910= 47\%$$

$$3338= 53\%$$

From the Krejcie and Morgan table a population of 6248= 364

$$\text{If } 100\%=364$$

$$47\%=?$$

$$53\%=?$$

The number of respondents from each ward was therefore reached at through proportionate sampling.

Table 3.1									
<i>Table for Determining Sample Size of a Known Population</i>									
N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	100000	384

*Note: N is Population Size; S is Sample Size* *Source: Krejcie & Morgan, 1970*

**Fig 3.3: Krejcie and Morgan Table**

**Table 3.3 Proportionate sample size**

Sample representative	Number	Percentage
Kiogoro	171	47
Keumbu	193	53

### **3.4 Research instruments**

Questionnaires, interview guides and content analysis code schedule are the tools that were used to collect information for the study. Use of questionnaires was ideal as they are easy to administer, collect and analyze data involving large numbers of respondents. For researchers study needs to be met, the questionnaires used featured both open and closed ended questions. Interview guide was used to enable the researcher gather information from the key informants. Though the researcher was guided by interview guide, he was able to probe further on the answers provided by key informants to fully source the data required for the study.

### **3.5 Data collection procedure**

The researcher procured research permit from Rongo University, School of Information Communication and Media studies and School of Postgraduate Studies. She proceeded to secure permission from officials in charge of the study areas which involved deputy head of Egesa FM, chiefs and sub chiefs who are administrators of locations and sub locations respectively of areas of study. This followed administering of Questionnaires to individual farmers by the researcher.

Respondents were given adequate time to fill the questionnaires which the researcher collected immediately after they were filled. In cases where the respondents were unable to read and write, the researcher asked the questions and filled the respondents' responses on the questionnaires. In-depth interviews were conducted with the key informants at their respective areas by the researcher. The researcher also undertook content analysis of Egesa FM programs for two weeks spanning 6th March to 19th March 2017.

### **3.6 Validity of the research instruments**

Pre-testing enables the researcher to modify and remove ambiguous items on instruments (Kothari & Garg, 2014). Mugenda and Mugenda (2003) define validity as the ability of instruments to measure what they are intended to measure. Reliability is the stability or consistency of scores over time while validity is refers to the extent to which an instrument truly measures what it is intended to measure or how truthful the research instruments are (Golafshani, 2013). In order to check and improve reliability and validity, a pilot study was undertaken on 5 small scale farmers in Kiogoro and Keumbu wards, this was to estimate the reliability of the questionnaires as far as the data needs of the study were concerned.



### **3.7 Data organization**

The raw data has to be organized in a way that is relevant to problem identified by the researcher, state facts that can be supported by data from which knowledge can be derived (Kombo & Tromp, 2006). This subsection therefore comprises subsections in data organization including data processing, data coding scheme and data analysis.

Before analyzing the data, the researcher cleaned the data by removing some questions that were amounting to similar responses. The researcher also identified responses that were different but referring to the same thing and put that together. Contradictory data from related questions that could reflect negatively on the study findings was also cleaned.

The data was also coded. Coding scheme is unambiguous set of prescriptions of how all possible answers are to be treated and what numerical codes are to be assigned to particular responses. Here the researcher assigns codes to each likely answer and specifies how other responses are to be handled (Kombo & Tromp, 2006). All the respondents' responses from each of the choices that were closed ended questions in the questionnaire were put together and letters allocated to such choices. The researcher allocated this choices code : a,b,c...and so on. For open ended questions, similar responses were grouped and similar coding applied to each of the responses.

The questionnaires, interviews and content analysis were expected to bring about quantitative and qualitative data. Quantitative data was analysed where the codes developed for the data was keyed. This resulted from data that was presented on distribution tables in form of frequencies and percentages. Analysis of the interviews and the content and programming of Egesa FM was done using descriptive statistics. From these, inferences, conclusions and recommendations were made.

### **3.9 Ethical Considerations**

Ethical Issues are norms governing human conduct which have a significant impact on human welfare. It involves making a judgment about right and wrong behavior, Kothari (2011). Before data collection, permission to carry out research was sought from the relevant authority. The researcher ensured that confidentiality of the information obtained should be only used for the purpose of the study. Appropriate credit was given to all parties contributing to the research. Bryman (2011) states that it is the responsibility of the researcher to carefully

assess the possibility of harm to research participants, and the extent that it is possible; the possibility of harm was therefore minimized.

## CHAPTER 4

### DATA PRESENTATION AND ANALYSIS

#### 4.1 Introduction

This chapter summarizes the discussion of the study findings on the influence of Egesa FM programs on the value addition practices of farmer in Nyaribari Chache Sub-County. The analysed data is presented using tables, narrations and discussions based on the study objectives and items on the questionnaire. The researcher presents the raw data followed by a discussion.

#### 4.2 Response rate

The sample size was 364, out of the 364 questionnaires that the researcher gave out to the respondents, 358 were returned in time for data analysis. This gave a response rate of 98.41%. Males formed majority respondents while females formed the minority of respondents. For qualitative data collection, the study involved face to face interview with two agricultural officers; one an agro-processing and value addition officer in Nyaribari Chache sub-county and another field extension officer, the researcher also interviewed the host of the agriculture documentary who is also the deputy head of programming for Egesa FM.

**Table 4.1:Response rate.**

<b>Ward</b>	<b>Target population</b>	<b>Questionnaires</b>	<b>Response rate</b>
<b>Kiogoro</b>	171	170	99.42
<b>Keumbu</b>	193	188	97.41
<b>Total</b>	<b>364</b>	<b>358</b>	<b>98.41</b>

**Researcher's Field work 2017**

#### 4.3 Demographic characteristics

Demographic characteristics of the respondents were analyzed based on their gender, age, level of education and farming activity. The study results revealed that majority of the farmers are male represented by 57.14% and that of females was 42.86% the time the agricultural radio documentary is aired is ideal in determining the listenership of the target audience. Majority of the respondents were between the ages of 36-45 forming 34% percent

of the total respondents. Those in between the ages of 26-35 formed 27% percent and those above 55 were 11%. The study further revealed that 24% of respondents were aged 46-55 and 4% percent were 25 years and below. The study results revealed that, majority of the respondents in this study had primary and below level of education which was 40.66 percent, the study further indicated that 23.08% had certificate 18.13 percent had attained secondary education, 7.97 percent had post secondary diploma and 4.67 percent had a bachelors degree. Majority of the respondents in the study area remain largely small scale farmers because of lack of market for their produce, limited land among other factors. They only provide enough for their families owing lack of ready market and low income on their produce.

#### 4.3.1 Gender composition

The study results revealed that majority of the farmers are male represented by 57.14% and that of females was 42.86% the time the agricultural radio documentary is aired is ideal in determining the listenership of the target audience. Inasmuch as radio listening can be done while performing other duties, effective understanding and application of crucial information however require undivided attention from the listener. Women respondents, spend much of their time juggling over different chores which explains the low level of adoption of agricultural value addition technologies. This is attributed to the lack of adequate time to listen to agricultural programs disseminating agricultural value addition best practices; which if taken up and practiced can increase income on agricultural produce.

**Table 4.3.1: Gender.**

<b>Sex</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Male</b>	205	57.27
<b>Female</b>	153	42.73
<b>Total</b>	<b>358</b>	<b>100</b>

#### **Researchers field work 2017**

#### 4.3.2 Age

Majority of the respondents were between the ages of 36-45 forming 34% percent of the total respondents. Those in between the ages of 26-35 formed 27% percent and those above 55 were 11%. The study further revealed that 24% of respondents were aged 46-55 and 4%

percent were 25 years and below. The researcher observed that the respondents below 45 years were involved in farming activities resulting in quick returns like vegetable farming and sold their produce directly in small scale or indirectly through middlemen.

#### **4.2.3 Educational level**

Educational level of respondents is important in cognitive uptake of agricultural information disseminated through the program. The study therefore sought to establish the level of education of the respondents. The study results revealed that, majority of the respondents in this study had primary and below level of education which was 40.66 percent, the study further indicated that 23.08% had certificate 18.13 percent had attained secondary education, 7.97 percent had post secondary diploma and 4.67 percent had a bachelors degree.

The highest percentage of respondents have primary and below level of education indicating the high levels of illiteracy which have a direct correlation with the medium chosen or program listened to. The use of official language of Kiswahili and English for a program to disseminate information on value addition to agricultural produce will not have much impact to a section of such group who are largely subsistence farmers. This is supported by Orao (2009) who stated that in most parts of the African continent, the 'officially ignored' indigenous languages are spoken by those with low levels of education or no education at all to create impact on such kind of audience then requires utilization of a medium that uses a language that they can understand and obviously this language is their mother-tongue.

#### **4.3.4 Farming activity**

According to the study findings most farmers are involved in more than one farming activity with the majority of the respondents undertaking subsistence farming which is 67.03 percent, 8.71 percent keep livestock, 4.95 percent are cash crop( tea and coffee) farmers, 3.30 percent practiced fish farming while 2.20 percent practiced other farming activities that were not listed. Majority of the respondents in the study area remain largely small scale farmers because of lack of market for their produce, limited land among other factors. They only provide enough for their families owing lack of ready market and low income on their produce.

### 4.3.5 Farmers source of agricultural information

According to the study findings, 46.70 percent reported to get agricultural information from radio making it the dominant source. The study further indicated that farmer friends are the second source of agricultural information at 18.13 percent. Information shared include; farming methods, prices of inputs among others, 17.03 percent of respondents reported to get agricultural information from extension officers which included information on pests and diseases, hybrid seeds, better farming methods and fertilizer utilization. 7.69 get information from Barazas where they are informed about the availability of free seeds from the government and the time to collect the seeds. 2.20 percent reported to get information from seminars organized by seed and fertilizer companies. TV was at 4.67% while newspaper and magazines at 3.02. Internet was the least utilized agricultural information source at 0.82%.

**Table 4.3.5 Source of agricultural information**

Source	Frequency	Percentage
Radio	170	46.70
Fellow farmers	66	18.13
Extension officers	62	17.03
Barazas	28	7.69
Seminars/workshops	8	2.20
Television	17	4.67
Newspaper/magazines	11	3.02
Internet	3	0.82

### Researcher's field work 2017

#### 4.2.5.1 Agricultural information disseminated

According to the research findings, the dominant agricultural information accessed on vernacular radio is on better crop rotation practices and fertilizer application, other information broadcast include: improved seedlings, introduction to new herbicides and

pesticides, crop disease treatment and control, new methods of crop preservation, introduction of new animal vaccines and drugs.

**Table 4.3.5.1 Agricultural information**

<b>Agricultural information</b>	<b>Frequency</b>	<b>Percentage</b>
Crop rotation best practices and fertilizer application	350	96.15
Improved seeds	325	89.28
Crop disease treatment and control	319	87.64
New methods of crop reservation	164	45.05
Animal vaccines and drugs	102	28.02
Farmer cooperatives	98	26.92
Processing and packaging of produce	43	11.81

**Researcher's Field work 2017**

**4.3.6 Listening to radio**

The respondents were asked to indicate how often they listened to the radio. From the findings most of the farmers indicate that they were listening to the radio on daily basis while others indicated that they were listening to the radio frequently. All the interviewees said they listen to radio regularly. From these findings we can deduce that the farmers were listening to the radio on a regular basis.

The respondents were asked to indicate the ownership of the radio they listened to. From the findings, 56% of the farmers reported that they owned the radio they listened to, 42.2% indicate that the radio they listened to was owned by their family and 1.7% indicated that the radio they listened to was owned by their friends. This shows that most of the farmers in this study owned a radio set. These findings are also echoed by the interviewees who indicated that the radio set they were listening to was owned by individuals or family.

**Table 4.3.6.1 Radio ownership**

<b>Radio ownership</b>	<b>Frequency</b>	<b>Percentage</b>
Own	199	56
Family	150	42.2
Friends	6	1.7
<b>Total</b>	<b>358</b>	<b>100%</b>

Further, the farmers were asked to indicate whether they listened to Egesa FM. According to the findings, 97.4% of the farmers reported that they listened to Egesa FM while 2.6% indicated that they were not listening to Egesa FM. This shows that most of the farmers in this study listened to Egesa FM.

From the farmers who indicated that they listened to Egesa FM, the study sought to find out their favorite programs. From the findings, the mid morning show from 10am-1pm had the most listeners; it is worth noting however that if a true picture is to be depicted an analysis of people's concentration during this show is crucial. During this show, farmers for instance are tuned in to radio but also going on with their daily farm activities and therefore uptake of information may be passive. Most farmers claim to be settled between 7pm-10pm and are listening to radio without divided attention then. Therefore, the fact that most people (who listen to Egesa FM) tune in during the mid morning program does not suggest comprehension and understanding of the issues discussed during that show. For effective comprehension and uptake of agricultural information farmers need to pay undivided attention.

The farmers were further asked to indicate whether they listened to the program "Oboremi Bwaito". From the findings, 97.4% of the farmers indicated that they listened to the program "Oboremi Bwaito and hence they had the information required to meet the objectives of this study.



**Table 4.3.6.2 listening to the program Oboremi Bwaito**

<b>Listening to program</b>	<b>Frequency</b>	<b>Percentage</b>
Yes	348	97.4
No	10	2.6
<b>Total</b>	<b>358</b>	<b>100</b>

#### **4.4 Content analysis of Egesa FM programs**

This section comprises a content analysis of Egesa FM programs for the period starting 6<sup>th</sup> March 2017 to 19<sup>th</sup> March 2017. The researcher found out that there are five areas of programming namely: economy, agriculture, healthcare, education and politics. On economy Egesa Fm discusses business opportunities, prices of commodities in other parts of the country, on agriculture Egesa FM brings out issues on Fertilizers(alternative fertilizer) markets, improved seeds, pesticides, food preservation, increased yields (farm utilization). Vacancies and school registration opportunities are discussed, political parties, coalitions, independent candidates, winners and losers in party primaries, manifestos and on health family planning issues are discussed where women are encouraged to find a family planning method that suits them , vaccines, preventive measures for illnesses especially Malaria ( use of mosquito nets)

**Table 4.4 Topics discussed**

<b>General Area</b>	<b>Specific Issues</b>	<b>Nature of discussion</b>
Economy	Business opportunities, prices of commodities in other parts,	Panels of experts call ins from listeners.
Agriculture	Fertilizers(alternative fertilizer) markets, improved seeds, pesticides, food preservation, increased yields (farm utilization)	An expert in livestock/crop or from a seed company, call ins to ask questions
Education	College/vacancies opportunities,	Advertisement, a host form the institution interviewed, SMS
Politics	Political parties, coalitions, independent candidates, winners and losers in party primaries, manifestos	A political analyst, politician, independent candidates. SMS from listeners
Healthcare	Family planning, vaccines, preventive measures for illnesses especially Malaria ( use of mosquito nets)	Medic, Marriage counselor, Call ins from listeners

**Researchers field work 2017**

The researcher found out that the morning program *bokaboka* [wake up wake up] is allocated four hours. It is worth noting that it is during this show that the agricultural radio feature *Oboremi Bwaito* [Our farming] is aired for only 10 minutes. The producer of the program said that is all the time he has for the program because there are also other programs in the line-up, he however said he will be grateful if he had more time for the program. From 10am-1pm the program *Omogusii N'ekebago* [Omogusii and work] is aired 10am-1pm and encourages listeners to work hard to earn a living especially in their farms, the kind of songs played during this program also echo the message which is to work hard. Phrases like *ng'ai okebwaterete* [where are you catching it; work from], *ekioro* [lazy thing] are very prominent, from 1pm-4pm *Ebirundo bie Egesa* [ fast speed of Egesa] is aired where gospel and secular

music is played, in the researchers own opinion, the program is more inclined to the youth because of the nature of discussions during the show for instance, what is trending on social media and the use of phrases like *tbt* attract a relatively youthful audience from 4pm-7pm Egesa FM airs *Entabanania* where people call in to say what they are carrying home to their families and from 8pm-11pm *Rimore* (torch) discusses family issues especially on marriage. Between 7pm-9pm, the station mostly airs news and hosts politicians and other stakeholders for interviews sometimes they bring an agricultural expert, a marriage counselor, health expert among others.

#### **4.5 Influence of Egesa FM programs on Value addition practices**

The first objective of this study was to explore the influence of Egesa FM programs on value addition to agricultural products in Nyaribari Chache sub-county. The study findings indicate that that majority of the respondents heard about value addition best practices on radio representing 32.42 percent. The dominance of radio as the source of agricultural information was attributed to its nature to overcome illiteracy, availability; every household has a radio set, distance barriers and other geographical and financial factors. The dominant value addition information broadcast during the programs was drying and storage of vegetables using solar driers and many farmers claimed to have seen the solar driers during field days but had not used them to preserve their vegetables because the equipment was expensive and many farmers did not know where to purchase it.

##### **4.4.1 Farmers main source of information on value addition**

The study findings indicated that that majority of the respondents heard about value addition best practices on radio representing 32.42 percent, fellow farmers were at 25.55 percent, agricultural extension officers followed at 24.17 percent, chief's baraza at 8.24 percent, field days at 5.77 percent, Television at 2.20 percent, printed literature at 1.10 percent and internet at 0.55 percent. Respondents were further asked if they have practiced any form of agricultural information heard on radio and most of them could relate to the fact that they had adopted one or two methods they had learnt.

The dominance of radio as the source of agricultural information was attributed to its nature to overcome illiteracy, availability; every household has a radio set, distance barriers and other geographical and financial factors.

According to the study findings, majority of the respondents reported to receive information on new methods on produce preservation, other information included packaging, labeling, differentiation and branding. The dominant value addition information broadcast during the programs was drying and storage of vegetables using solar driers and many farmers claimed to have seen the solar driers during field days but had not used them to preserve their vegetables because the equipment was expensive and many farmers did not know where to purchase it.

#### **4.4.2 Influence to become a better farmer**

The farmers were asked to indicate whether they thought the program had helped them to become better farmers. According to the findings, 96.43% of the farmers reported that the program had influenced them to become better farmers while 3.57% disagreed. This shows that the agricultural program 'Oboremi Bwaito' has influenced most farmers to become better farmers. The farmers indicated that they had been able to try out new farming methods mentioned in the program, those who had not been able to practice a new farming method heard from the program sighted lack of capacity to implement the method because it either required an expert on the ground to demonstrate or it was an expensive venture whose cost they would not afford. It is worth noting that the reason the producer started the program was to influence the Abagusii people become better farmers, with limited but productive land, the producer wanted to be able to work with development partners, especially those in the agricultural sector to sensitize people on better farming methods and to be able to tell the success stories of other farmers

#### **4.4.3 Practicing a new value addition method learnt from the program**

The farmers were further asked to indicate whether they had been able to practice new value addition methods heard from the program.

**Table 4.4.3 Practicing new method**

<b>Farmers</b>	<b>Frequency</b>	<b>Percentage</b>
Yes	224	62.57
No	134	37.43
<b>Total</b>	<b>358</b>	<b>100</b>

According to the findings, 62.57% of the farmers reported that they had been able to practice new value addition methods learnt from the program in groups but not as individuals. However 37.43% of the farmers indicated that they had not been able to practice new value addition methods because they were not able to acquire the basic equipment for value addition and they also indicated that most of these basic value addition equipment belonged to groups and therefore an individual farmer was not better placed to practice this methods at home. From these findings, we can deduce that most of the farmers had not been able to practice new value addition method as individuals but they had heard it on radio and had been able to practice it in their farmer groups.

#### **4.6 Farmers perception of Egesa FM programs**

The second objective of this study was to find out famers perceptions of Egesa FM programs. From the findings, the farmers reported that they liked information on better methods of farming; they got to know pesticides and herbicides to use against diseases in animals as well as farm inputs. The farmers also reported that they liked the mode of presentation as it echoed their real issues in as far as better farming is concerned, the presentation is also easy to follow and the program is educative. Further findings indicated that. From the findings, 87.25% of the respondents reported that the topics that are presented address their needs while 12.75% disagreed. From the findings, 52.75% rate the content as good, 29.86% feel that the content is fair. 16.23 indicated that the content is very good and 1.16% feel that the program's content is poor. The study findings also revealed that majority of respondents were less satisfied with value addition information delivered by the program representing 67.61%. 1.7% reported to be very satisfied, 14.77% satisfied, 15.34 not satisfied while 0.57% were not decided. Asked if they were satisfied with the program content, majority of respondents were less satisfied with value addition information delivered by the program representing 67.61%. 1.7%

reported to be very satisfied, 14.77% satisfied, 15.34 not satisfied while 0.57% were not decided.

#### 4.6.1 Topics presented and farmers needs

The farmers were asked to state what they like about the programs. From the findings, the farmers reported that they liked information on better methods of farming; they got to know pesticides and herbicides to use against diseases in animals as well as farm inputs. The farmers also reported that they liked the mode of presentation as it echoed their real issues in as far as better farming is concerned, the presentation is also easy to follow and the program is educative.

The farmers were asked to indicate whether they thought the topics that are presented address their needs. From the findings, 87.25% of the respondents reported that the topics that are presented address their needs while 12.75% disagreed.

**Table 4.6.2 Topics and farmers needs**

Perception	Frequency	Percentage
Agree	301	87.25
Disagree	44	12.75
<b>Total</b>	<b>345</b>	<b>100</b>

#### Researcher's Field work 2017

#### 4.5.3 Rating of the content of the agricultural program

The respondents were further asked to rate the content of the program 'Oboremi bwaito'. From the findings, 52.75% rate the content as good, 29.86% feel that the content is fair. 16.23 indicated that the content is very good and 1.16% feel that the program's content is poor.

The findings were as shown below

**Table 4.5.3: Rating of content**

<b>Rating</b>	<b>Frequency</b>	<b>Percentage</b>
Very good	56	16.23
Good	182	52.75
Fair	103	29.86
poor	4	1.16
<b>Total</b>	<b>345</b>	<b>100</b>

**Researcher's Field work 2017**

From the findings, 52.75% rate the content as good, 29.86% feel that the content is fair. 16.23 indicated that the content is very good and 1.16% feel that the program's content is poor.

**4.5.4 Level of satisfaction with the information on value addition broadcast**

The farmers were asked to indicate the satisfaction level of farmers pertaining value addition gotten from the program. The study findings revealed that majority of respondents were less satisfied with value addition information delivered by the program representing 67.61%. 1.7% reported to be very satisfied, 14.77% satisfied, 15.34 not satisfied while 0.57% were not decided.

**Table 4.5.4 Level of satisfaction**

<b>Level of satisfaction</b>	<b>Frequency</b>	<b>Percentage</b>
Very Satisfied	6	1.7
Satisfied	54	14.77
Less satisfied	246	67.61
Not Satisfied	56	15.34
Not decided	2	0.57

### **Researcher's field work 2017**

Majority of the farmers; 67.61% in this study were less satisfied with the value addition information broadcast on the program. They pointed out inadequate content on value addition during the agricultural program, limited airtime allocated to agricultural program, inappropriate broadcast time for agricultural program as the reasons for them being less satisfied with the value addition information disseminated on vernacular radio. The 0.57% of respondents who were undecided are those who have little understanding of what value addition means and attribute their lack of decision on the issue to lack of awareness on the value addition to agricultural produce. The 1.7% of respondents who were very satisfied are those that have heard about value addition best practices on radio and have put them into practice and are enjoying the benefits of their ventures.

#### **4.6 How farmers use information from the programs**

The third objective of this study was to find out how farmers use information from the program to improve their value addition practices. The farmers have created various value chains with the aid of agricultural extension officers which help them in adding value to their produce, these include: the dairy value chain, the poultry value chain, fruits/vegetables value chain among other value chains. Further, the farmers indicated that they used vegetable solar driers to dry their vegetables so that they could not go bad. The farmers have created various value chains with the aid of agricultural extension officers which help them in adding value to their produce, these include: the dairy value chain, the poultry value chain, fruits/vegetables value chain among other value chains. According to the findings, the farmers indicated that they had been able to practice juice making, vegetable drying using vegetable solar driers, making of banana crisps and chips, baking banana and pumpkin cakes, banana ripening and grain drying.

The respondents were asked to indicate how they had used information from the program to improve their value addition practices. According to the findings, the farmers indicated that they had started ripening their bananas before selling more often than they used to because they have learnt the economic value of doing so. They also indicated that they were avoiding food spoilage by drying and storing before selling. Further, the farmers indicated that they used vegetable solar driers to dry their vegetables so that they could not go bad. The farmers have created various value chains with the aid of agricultural extension officers which help them in adding value to their produce, these include: the dairy value chain, the poultry value



chain, fruits/vegetables value chain among other value chains. According to the findings, the farmers indicated that they had been able to practice juice making, vegetable drying using vegetable solar driers, making of banana crisps and chips, baking banana and pumpkin cakes, banana ripening and grain drying.

The farmers were also asked to indicate which new method of value addition they had been able to practice learnt from the program. According to the findings, the farmers indicated that they had been able to practice juice making, vegetable drying using vegetable solar driers, making of banana crisps and chips, baking banana and pumpkin cakes, banana ripening and grain drying.

#### **4.7 Challenges farmers face while relying on Egesa FM programs for Value addition information**

The study sought to establish challenges farmers face while relying on Egesa FM programs especially the program ‘Oboremi Bwaito’ for information on value addition in the third objective of this study. The study findings indicated that the greatest challenge is the inappropriate broadcast time of agricultural related programs representing 61.26% Others were reported to be inadequate broadcast time at 28.57% limited content on value addition at 8.52% and, poor signal at 1.65% .This is as shown in table below.

**Table 4.4 Challenges farmers face**

<b>Challenge</b>	<b>Frequency</b>	<b>Percentage</b>
Inappropriate broadcast time	223	61.26
Inadequate broadcast time	104	28.57
Limited content	31	8.52
Poor signal	6	1.65

#### **Researcher’s field work 2017**

Egesa FM, being a Commercial Vernacular radio station being driven by profits, cannot afford to air their own sponsored agricultural programs at prime time, which is taken up by paid sponsors who broadcast sponsored programs beneficial to them. The station sponsored agricultural programs are broadcasted during off pick hours that attract few listeners hence

less impact. Such a program is ‘Oboremi Bwaito [our farming] aired between 6 am and 10am for 10 minutes every day from Monday to Friday. The other challenge is limited airtime which is 10 minutes daily for the agricultural feature which prevents farmers from accessing adequate information from the program; the other is inadequate content on value addition to agricultural produce best practices. The other challenge is lack of a physical demonstrator to help farmers implement these practices heard on radio.

#### **4.4.1 What can be done to address these challenges?**

The study findings indicated that most farmers felt that agricultural programs should be broadcast between 7pm-9pm for them to get maximum benefit from information disseminated. At that time most of them are done with their daily chore are tuned in to radio for news and entertainment.

**Table 4.4.1 Appropriate broadcast time**

<b>Broadcast time</b>	<b>Frequency</b>	<b>percentage</b>
6am-10am	45	12.59
10am-1pm	74	20.67
1pm-4pm	14	3.91
4pm-7pm	57	15.92
7pm-9pm	168	46.93

#### **Researcher’s fieldwork 2017**

Asked what they feel can be done to address the issue of limited content, majority of the respondents wanted farmers who had put the techniques into practice to be invited to the shows to explain in detail the process and its profitability. Others wanted experts from in the area of value addition to give their voice during these programs to break down information on value addition to farmers. The producer of the program admits that he has been requested to broadcast the program at a different time and to also give it more air time, this is something he has been working to achieve over the years but with many programs at the station, it will take some time before this is addressed.

## **CHAPTER 5**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter summarizes the research findings which respond to the study questions which are; what is the influence of Egesa FM's programs on value addition practices of farmers in Nyaribari Chache Sub-County? What are the farmers' perceptions of the programs, how do farmers use the value addition information from the programs to improve their value addition practices and what challenges do farmers face while relying on the programs for information on Value addition? The discussions on chapter four are what formed the basis for this summary of conclusions and recommendations.

#### **5.2 Summary**

The findings of this study, which sought to explore the influence of Egesa FM programs on the value addition practices of farmers in Nyaribari Chache Sub-county, are in support to the existing literature. The results indicated that most rural residents earn their living from subsistence farming, most of the residents are illiterate and poor having primary and below level of education, which are some of the factors hindering agricultural information flow and hence adoption of new farming strategies to achieve value addition in Nyaribari Chache Sub-county. The study also established that the farmers had been able to use information from the programs to improve their value addition practices. Some of the farmers had been able to practice a new value addition method learnt from the program. The study found out that the farmers had learnt how to make juices from their fruits, how to dry their vegetables for storage, how to blend their agricultural products, how to extract butter and ghee from milk.

The farmers had also learnt to form farmer cooperatives which could help to link farmers to buyers instead of having to deal with unscrupulous middlemen. The study also found that the program Oboremi Bwaito is useful to farmers. In relation to the program content, most farmers indicated that the content of the program Oboremi Bwaito was good. The farmers however noted that they were not satisfied with the value addition information broadcast on the program, they felt the content on value addition was limited and that the program did not

bring on board farmers who had tried the various value addition ventures and value addition experts to talk during the program.

The study established that the farmers had started using solar driers to dry vegetables so that they could transport them to other places for sale. In addition, as a result of training in the program, farmers were in a position to avoid banana spoilage by making banana chips and drying them for preservation, they also made banana crisps which they packaged and sold. Farmers also extracted cream from milk and made yogurt for sale. Though the practice of value addition is not widely practiced in the sub-county, those who had used the information from the program said they had seen its benefit. Farmers identified inappropriate broadcast time, limited content, limited content on value addition and others pointed out poor signal as the hindrance to effective delivery of agricultural information. To solve such problems, most farmers prefer agricultural programs to be broadcasted from 7.00pm to 9.00pm, followed by those who wish such programs to be broadcasted from 10am to 12 noon while the least want this programs done at lunch hour (between 1 to 4.00pm). Others would wish to see the content for the agricultural programs improved and more airtime to be allocated to the agricultural programs.

### **5.2.1 Influence of the programs on the value addition practices of farmers**

The first objective of this study was to explore the influence of the programs on the value addition practices of farmers in Nyaribari Chache. The study established that the program Oboremi Bwaito had influenced most farmers to become better farmers.

The study also established that the farmers had been able to use information from the programs to improve their value addition practices. Some of the farmers had been able to practice a new value addition method learnt from the program. The study found out that the farmers had learnt how to make juices from their fruits, how to dry their vegetables for storage, how to blend their agricultural products, how to extract butter and ghee from milk.

The farmers had also learnt to form farmer cooperatives which could help to link farmers to buyers instead of having to deal with unscrupulous middlemen. The researcher further found out that the program Oboremi Bwaito is useful to farmers. In relation to the program content, most farmers indicated that the content of the program Oboremi Bwaito was good. The farmers however noted that they were not satisfied with the value addition information broadcast on the program, they felt the content on value addition was limited and that the

program did not bring on board farmers who had tried the various value addition ventures and value addition experts to talk during the program. The study established that the farmers had started using solar driers to dry vegetables so that they could transport them to other places for sale. In addition, as a result of training in the program, farmers were in a position to avoid banana spoilage by making banana chips and drying them for preservation, they also made banana crisps which they packaged and sold. Farmers also extracted cream from milk and made yogurt for sale. Though the practice of value addition is not widely practiced in the sub-county, those who had used the information from the program said they had seen its benefit.

### **5.2.2 Farmers perceptions of the programs**

The second objective of this study was to investigate the perceptions of the farmers towards the programs of Egesa FM. The study established that they liked the mode of program presentation as it is listener friendly, the presentation is easy to follow and the programs are educative. The study also established that the topics presented in the program "Oboremi Bwaito" address farmers' needs.

The study also found that the program Oboremi Bwaito is useful to farmers. In relation to the program content, most farmers indicated that the content of the program Oboremi Bwaito was good. The farmers however noted that they were not satisfied with the value addition information broadcast on the program, they felt the content on value addition was limited and that the program did not bring on board farmers who had tried the various value addition ventures and value addition experts to talk during the program.

### **5.2.3 How farmers use information from the programs**

The third objective of this study was to find out how the farmers use information on the programs to improve their value addition practices. The study established that the farmers had started using solar driers to dry vegetables so that they could transport them to other places for sale. In addition, as a result of training in the program, farmers were in a position to avoid banana spoilage by making banana chips and drying them for preservation, they also made banana crisps which they packaged and sold. Farmers also extracted cream from milk and made yogurt for sale. Though the practice of value addition is not widely practiced in the sub-county, those who had used the information from the program said they had seen its benefit.

The study also established that the programme helped farmers improve their production. The producer was usually guided by Kenya's vision 2030 which aspired to making Kenya an

agriculturally productive society with the aim of curbing food insecurity among the Kenyan population.

The techniques of farming that the programme talked about included agro forestry, soil conservation, well utilization of farms, application of fertilizers to crops, how to improve productivity, top dressing and control of field pests, cross breeding and use of greenhouse. Other techniques included: green house technology, horticulture, use of composite manure, modern methods of controlling diseases for animals and crops, techniques of applying farm inputs, market infrastructure for the produce and so on.

On the benefits of the programme, the study found that farmers got informed of the appropriate farm inputs that help increase production. In addition, the programme sensitized farmers on how to prepare the land for planting. The study also found that through the programme, farmers had benefited from by growing short-term crops such as carrots, beatrudes, cucumbers, pumpkins, vegetables and grafted avocados that mature fast. The programme had also benefited the farmers in improving their yields, controlling diseases and storage techniques of farm produce.

#### **5.2.4 Challenges Farmers face**

On the challenges farmers face while relying on Egesa FM radio programs to get information on value addition, farmers identified inappropriate broadcast time, limited content, limited content o value addition and others pointed out poor signal as the hindrance to effective delivery of agricultural information. To solve such problems, most farmers prefer agricultural programs to be broadcasted from 7.00pm to 9.00pm, followed by those who wish such programs to be broadcasted from 10am to 12 noon while the least want this programs done at lunch hour(between 1 to4.00pm). Others would wish to see the content for the agricultural programs improved and more airtime to be allocated to the agricultural programs.

The study also found out that despite the fact that most of the farmers were listening to Egesa FM, most of them were not participating in the programme. However, the youth indicated that they used mobile line to call or send short mobile messages and also used social media such as Facebook and WhatsApp. Elderly interviewees mostly from the age of 40 years and above reported that they rarely made their contributions due to lack of the contact line to the producer.

In addition, the study established that most of the farmers were having challenges in participating in the programme. For example, the study found that there was no permanent contact line particularly for the programme. The programme producer used the station's general mobile line which was constantly engaged making it difficult for them to contribute in whichever ways. Other farmers were having financial challenges. Further, the producer read the contact number a bit fast. However, some farmers were using short messages, calls, facebook and emails to participate in the programme.

### **5.3 Conclusion**

Based on the findings of the study the researcher made the following conclusions:

The program Oboremi Bwaito influences farmers' value addition practices in Nyaribari Chache Sub-County. The farmers have learnt new farming methods and value addition practices from the program. Given the limited number of agricultural extension officers and large number of farmers, the program can be used to complement other sources of agricultural information.

The program Oboremi Bwaito is useful to farmers in Nyaribari Chache Sub-county and has greatly influenced their farming practices. The farmers have learnt new farming skills from the program and gained knowledge on various farming methods. The program can be effectively used to supplement other sources of agricultural information such as agricultural extension officers, NGO's and ASK shows.

The topics presented in the program Oboremi Bwaito address farmers' needs on coffee, bananas, beans, potatoes farming among others. However, farmers also get agricultural information from agricultural extension officers, field days, neighboring farmers, television, ASK shows, seminars, trainings, NGOs like USAID, World Bank and agricultural field days.

The study also concludes that as a result of training in the program, farmers were in a position to avoid food shortage for their livestock by storing the feed as silage. Further, farmers can now use pipes for irrigation, practice farming of tomatoes on larger pieces of land, have started giving their cows' animal feeds and got more milk. They have been able to build sheds with cemented floors for their animals and were practicing mulching, spraying and weeding. The farmers in Nyaribari Chache Sub-county also practice artificial insemination and through this process they are able to get good quality breeds of cattle,

grafting avocados, rearing livestock and poultry. They have learnt new ways to plant napier grass, and had been advised to spray their plants which in turn improved their yields.

There is need for the producer of the program to include other topics like maize diseases precaution and control, prevention of diseases for horticultural crops, pig keeping, making biogas and value addition of outputs and marketing of the products.

The time the program Oboremi Bwaito is aired is inconvenient to some farmers as most of the times it coincides with their working hours. In addition, the time allocated for the program is not enough. The study also found that although most of the farmers were listening to the program Oboremi Bwaito, they were not participating in the program due to network challenges.

Despite limited content, the topics presented in the program 'Oboremi Bwaito' address farmers' needs on farming and best value addition practices. It is worth noting that farmers also get agricultural information from agricultural extension officers, field days, fellow farmers, Television, ASK shows, seminars, trainings, NGOs and seed and fertilizer companies.

The study also concludes that farmers were in a position to avoid food spoilage by engaging in various value addition ventures like the very basic ones which include drying. Farmers can also form farmer cooperatives to help them implement the value addition methods learnt from the program and value addition chains to mitigate the problem of selling their produce cheaply to middlemen for fear that if they don't sell their produce will go bad.

Despite the fact that radio is the main source of agricultural information for farmers in Nyaribari Chache sub-county, most farmers are not satisfied with the value addition information broadcast. There is need therefore, for the producer of the program to improve the content of the program by involving farmers who have been successful in their value addition ventures, experts on value addition should also come on board during the program to respond to farmer concerns and include other topics like where to get market for the value added products.

The time the program Oboremi bwaito is aired is not convenient for most farmers as most of the times it is when they are busy working on their farms. In addition, the time allocated for the program is not enough.



#### **5.4 Recommendations**

The researcher identified a number of aspects that can be adopted by vernacular radio stations, researchers, the county and national government in order to increase awareness on value addition to agricultural produce in Nyaribari Chache sub-county and other parts of the country. These include;

Egesa FM to broadcast major agricultural programs in the evening starting from 7.00pm to 9.00pm because at such a time almost all farmers are relaxing at their homes and can attentively listen to all agricultural information targeting them and their agricultural ventures without divided attention.

Vernacular radio stations broadcasting in Ekegusii language to improve their signal in all areas they intend to cover. This is to ensure that all farmers in such areas are able to clearly get the agricultural information being disseminated to them.

Egesa FM to host farmers who have tried various value addition methods during their agricultural programs. Other agricultural stakeholders like field officers and agro-processing value chain and development officers should also be invited to these programs to be able to reach a large number of people due to their limited number.

For the producers of agricultural programs to come up with more programs and for the programs on issues value addition to agricultural produce to be allocated relatively more airtime. With more time allocated to discussing how farmers can add value to their produce, they will be more informed and reap more from their produce.

Farmers should join farmer groups and cooperatives where they can discuss information received from radio for effective uptake. These will help the farmers understand the agricultural information better and even secure more markets and better prices for their products.

Government to offer support to those vernacular radio stations that broadcast agricultural programs. This can be done through offering subsidies or tax waiver to those vernacular radio stations broadcasting agricultural programs to encourage production of more of these programs.

County governments should facilitate extension so as to supplement the information already delivered through radio to farmers in various wards. This should be done by having a

budgetary allocation for production of pictorial pamphlets that are demonstrative of the various value addition activities to allow farmers to practically observe what they hear on radio.

County governments and cooperatives to set up agro-processing factories to protect farmers from unscrupulous middlemen and to enable them add value to their produce through

### **5.3.1 Recommendation for a further study**

As a result of limited time and resources the researcher concentrated on two wards in Nyaribari Chache Sub-County and one case of vernacular radio. Therefore, for a study that is to give a true picture of how things are in the whole country, there is a need for other studies to be done in different parts of the county and country and involving several vernacular radio stations to establish farmers perceptions on vernacular radio programming on value addition to agricultural produce in Nyaribari Chache sub-county and the country as a whole.

