

Assessment of Media Coverage of Agricultural Activities in Promoting Food Security among Small Scale Farmers in Kisumu West Sub-County: A Case of PurMariek Program on Radio Nam Lolwe 101.5 FM

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Abstract

*Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life. Media in Kenya has been in the forefront publicizing agricultural information that purpose to promote food security. Using a case of **PurMariek** program on **Radio Nam Lolwe 101.5 FM**, a commercial vernacular radio station, the study sought to establish the extent to which media coverage of agricultural activities contributes to food security (availability, accessibility, utilization and stability) by investigating whether farmers apply information from the media in their practice and also whether the information from media adequately addresses the four food security dimensions. Using the agenda setting and diffusion of innovation theories, the study done in Kisumu West Sub-County adopted mixed qualitative and quantitative research methods to collect data through questionnaires and in-depth interviews. The data was analyzed and presented as frequency distribution bar and pie charts and narrations from which conclusions and recommendations were made. The study established that the adoption of media message is hindered by poverty, as the majority of rural farmers are not able to afford high costs of farm inputs featured on the program. Also, the program segments are prerecorded hence limits interaction between farmers and experts. To make media messages more effective in promoting food security, the researcher recommended that relevant stakeholders including the media, farmers and policy makers work together and collaborate more. This is in addition to having more live sessions of the program rather than pre-recorded segments to increase chances for interactions during the shows.*

Keywords: Food Security, food accessibility, food availability, food utilization, food stability, *purMariek*, food security pillars

Introduction and Background

Food security not only carries significant benefits for human health, but also serves as the basis to achieve sustained economic growth (Torero,(2014) and it exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life, World Food Summit, “Report of the World Food Summit 13-17 November 1996.”. More than 820 million people in the world are still hungry today according to a report published by World Food Program in 2012. The report indicated that hunger is still on the rise in almost all sub-regions, out of which Africa, at 20% has the highest prevalence of undernourishment (FAO, 2019). According to Lotter (2015), Africa will only be able to feed a quarter of its population by the year 2030 if present trends at which the continent is losing its soil and soil nutrients continues.

In an effort to alleviate hunger and famine, United Nations Development Program (UNDP) set a target of zero hunger by the year 2030, as the second goal of the 17 sustainable development goals. This entails promoting sustainable agricultural, supporting small-scale farmers and equal access to land, technology and markets. UNDP however indicated that this also requires international cooperation to ensure investment in infrastructure and technology to improve agricultural productivity (UNDP, 2017). In Kenya, former president Uhuru Kenyatta in 2018 made food security one of his top most priorities for the government in his Agenda Four initiative.

Media plays key role in a society owing to its informative and educative purpose, as such effective use of media is vital when it comes to pushing the agenda of agriculture by disseminating information that would help improve food security in general. For instance, sharing about new innovations in the agricultural sector would certainly enable farmers to tackle some of the challenges they encounter in their agricultural ventures (Muhammad et al., 2012). In Kenya media coverage of agricultural activities in a bid to promote food security has taken the frontline as the main stream media both print and electronic disseminates a wealth of agricultural information in terms of success stories from accomplished farmers, how to do it stories which give instructions step by step on what to do in order to improve farming, expert opinion on what to do and what not to do in certain agricultural ventures and advertisements featuring newly improved seeds, fertilizers, pesticides, machines and other agricultural inputs. From the national

broadcaster Kenya Broadcasting Corporation to privately owned media such as Royal Media Service (Citizen TV), the Standard Group as well as Nation Media group to commercial vernacular radio station, the message is clear; agricultural activities are well covered by the media. However, despite the wealth of information shared by the media, food insecurity still persists in the country. This begs the question as to whether the information shared by the media is put into practice by farmers or not.

Using a case of *PurMariek* (Wise Farming), a weekly agricultural program on a commercial vernacular radio station, Radio Nam Lolwe 101.5 FM, which targets the people of Kisumu, Siaya, Homabay and Migori Counties, the study sought to establish whether agricultural information shared by the media is utilized by the small-scale farmers in Kisumu Rural Sub-County to improve food security (availability, accessibility, utilization and stability). The study also sought to establish whether the radio program adequately address the four pillars of food security.

According to Kenya Market Trust (2013), *PurMariek* program has a wide listenership owing to its informative nature, particularly for farmers. Since its launch in 2011, the program has provided an avenue through which farmers in the region have access to the much-needed advice and support on new and improved ways of farming and encouragement to pursue agribusiness. The weekly program is aired on Thursday between 7:15pm and 8:00pm when the majority of people in the rural areas are at home; the program attracts about 529,058 audiences according to the Kenya Audience Research Foundation (KARF) Quarter 1 (2013).

Objective of the Study

To assess media coverage of agricultural activities in promoting food security (availability, accessibility, utilization and stability)

Research Questions

This study sought to answer the following research questions:

- i) How does the program *PurMariek* contribute to the four dimensions of food security namely availability, accessibility, utilization and stability?

- ii) Do the content of the program *PurMariiek* on Radio Nam Lolwe adequately address the four dimensions of food security?
- iii) Apart from the media, what are the other sources of information on food security are available to small scale farmers and how do these alternative sources of information compare to the media in terms of reliability and effectiveness?

Literature Review

Media remains instrumental in dissemination of information especially when it comes to innovations. However, in rural areas, the narrative seems different as rural farmers more often than not turns to neighbors-friends-relatives as major source of agricultural information with regards to technology. A study done in Pakistan reveal this reality as Yaseen et al. (2016) posit that the major source of agricultural information for rural communities in Pakistan with regard to agricultural technology is neighbor-friend-relatives. However, media (print & electronic) also contribute equally good share for dissemination of agricultural information. When it comes to the media as sources of agricultural information especially to rural farmers, radio seems to be the most preferred as Hudson et al. (2017) indicate that radio is the most widely used medium for disseminating information to rural audiences across Africa because radio can easily be accessed even by the very poor communities and its penetration is vast as it is estimated that there are over 800 million radios in Sub-Saharan Africa. Radio is therefore considered as an instrument of choice for creating awareness of best practices to enhance food security among African farmers but it also has the potential to go beyond solely dissemination of information to help increase adoption of innovative agricultural practices (Hudson, Leclair, & Sullivan, 2017).

Theoretical Framework

This study was guided by two theories namely the Agenda Setting Theory and Diffusion of Innovation Theory. The two theory expound on how media coverage of agricultural activities influences food security (availability, accessibility, utilization and stability.)

Agenda Setting Theory

The ability to influence the salience of topic on the public agenda is called the agenda-setting role of the media(McCombs, 2013).The core concept of agenda setting assumes that media stimulates the awareness of people regarding certain issues, an assumption that is

grounded on two main principles namely, media shapes and filters reality before presenting it to people and secondly, these channels determine the priority with which individuals regard salient issues (Albalawi & Sixsmith, 2015). With regards to this study the media is setting the agenda through the selection of content featured on the program *PurMariiek*, which is intended to help improve food availability, accessibility, utilization and stability. According to Dininni (2005) studies of "second level" agenda-setting, or "attribute" agenda-setting, have shown that media presentations affect public perceptions not only regarding what issues are important, but also what aspects of those issues are important therefore both what and how the media report on a topic is reflected in public understanding and opinion about that issue. With regards to this research study, what and how Radio Nam Lolwe reports on *PurMariiek* program regarding food security is supposed to be reflected in the understanding and opinion of the target audience, in this case the people of Kisumu Rural Sub-County.

Diffusion of Innovation Theory

The study was also explored through the theory of diffusion of innovation which seeks to explain how, why and at what rate do new ideas, new technologies and new product gets adopted by the farmers in order to improve food security. According to Rogers, (2003) diffusion is the process by which an innovation is communicated through certain channels over time among members of social group. Adoption on the other hand is a decision to fully use an innovation as the best course of action available; while rejection is a decision not to use an innovation. The four key elements of diffusion include innovation, communication channel, time and social system

An *innovation* is basically an idea, practice or object that is perceived as new by an individual or other units of adoption, (Rogers, 2003). In agricultural context, innovations would be in terms of new farming methods, improved seeds and fertilizers, improved or newly invented farm equipment etc. The rates at which innovations are adopted by individuals depends so much on the perceived characteristics of an innovation by the target individuals. These characteristics includes relative advantage, compatibility, complexity, trialability and observability.

The second element of diffusion from the definition is the *Communication Channel* which basically means a medium through which information about a new idea is shared with an

individual or group of people who are not yet aware of the new idea. Media plays a key role in disseminating information about the new innovations. The agricultural programs on radio such as *PurMariek* are therefore key to sensitizing farmers about new innovations that would help improve food security.

Time is the third element of diffusion process and is basically about the period an individual takes from having knowledge of an innovation to either adopting it or rejecting it. Rogers, (2010) conceptualizes five main steps in the innovation-decision process. These includes *knowledge* which occur when an individual learn about the innovation existence and as well as some understanding of how it function; *persuasion* which occurs when an individual forms a favorable or unfavorable attitude towards an innovation; *decision* which occurs when an individual engages in activities that leads to a choice to either adopt or reject an innovation; *implementation* which occurs when an individual puts an innovation into use and finally *confirmation* which occurs when an individual seeks reinforcement of an innovation-decision that has already been made.

The fourth element of diffusion is the *social systems*, which Rogers (2003) define as a set of interrelated units that are engaged in joint problem solving to accomplish a common goal. With reference to this study, the social structures are the communities that are implementing agricultural activities, in this case farmers based in the rural parts of the country. According to Alila and Atieno (2006) over 80% of the Kenyan population live in the rural areas and derive their livelihoods, directly or indirectly from agriculture. These are the social structures referred to in this study.

Research Methodology

This study adopted a mixed qualitative and quantitative research methods to collect data through questionnaires and in-depth interviews. The quantitative data was analyzed and presented as frequency distribution tables, bar charts while in-depth interview with key informants were presented as narrations which provided further details to explain scenarios presented by the quantitative data. While quantitative data provided facts and figures without much explanations, qualitative data complemented these by providing detailed explanations

thereby answering questions left out by quantitative data leading to conclusions and recommendations.

Sampling Size and Sample Procedure

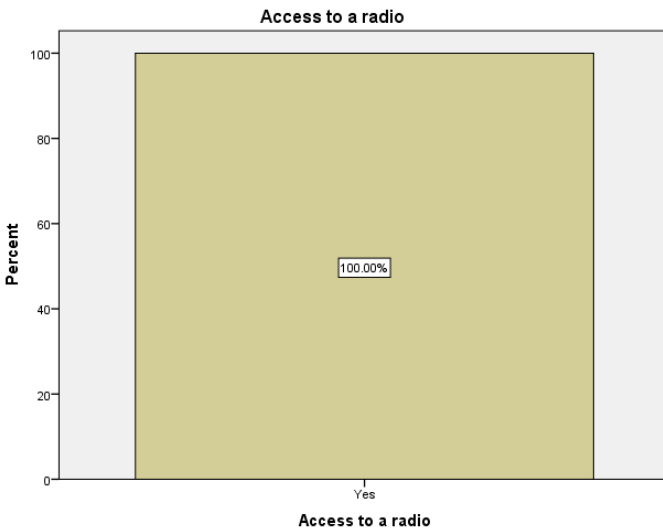
For the quantitative method, the researcher used random sampling method for 380 households since farming in most rural areas are perceived to be done at family level. For the qualitative method, key informants were chosen using snowball sampling method for the in-depth interviews, these include, journalists and producer of the program *PurMariek*, a village elder, agricultural extension worker, successful farmers from the area who are perceived to be early adopters of agricultural innovations learned from the media.

Key Findings

4.3:1) Access to radio

The study sought to establish whether the residents of Kisumu West Sub-County have access to radio. The respondents were required to respond by yes or no. If their answer was "no", they were to discontinue with the interview. The results are presented in figure 4.3.1

Figure 4.3.1: Access to Radio



Source: Field Survey, 2022

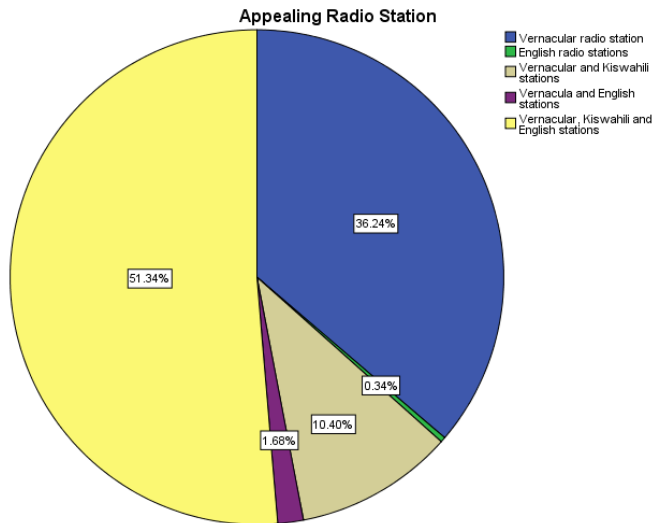
Communications channel is one of the four elements of diffusion of innovation. Thus, a channel that is accessible to the majority of people to whom an innovation is intended is ideal.

Radio in this case proves to be the most reliable medium for sharing about agricultural innovation.

4.3:2) Preferred radio stations

The researcher sought to establish the radio station (s) that appeal to the respondents who have a number of choices. The results are shown on figure 4.3.2

Figure 4.3.2: Preferred radio stations



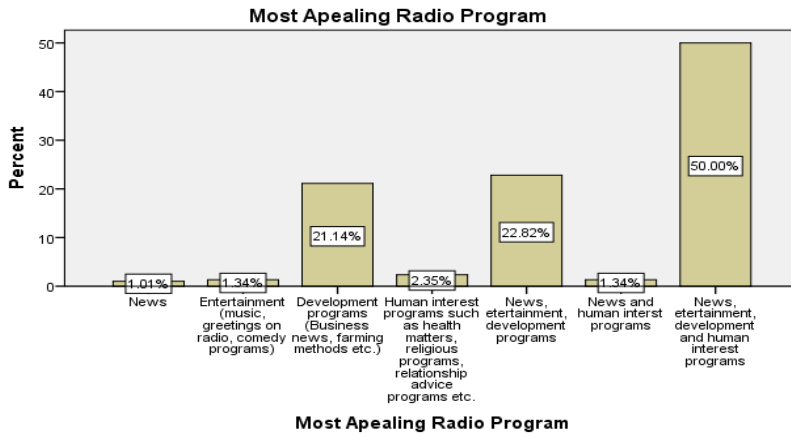
Source: Field Survey, 2022

Despite the fact that the sub-county is a rural place, vernacular radio stations are not exclusively preferred rather people prefer more to listen to a mixture of vernacular, Kiswahili and English stations. This means that whether agricultural information is broadcast using Kiswahili, English or vernacular radio stations, the message would still reach the majority.

4.3:3) Preferred radio programs

The study sought to establish the kind of radio programs that are most appealing to the residents of Kisumu West sub-county in order to see whether programs on agricultural activities fall in this category. The results are presented as follows:

Figure 4.3.3: Preferred radio programs



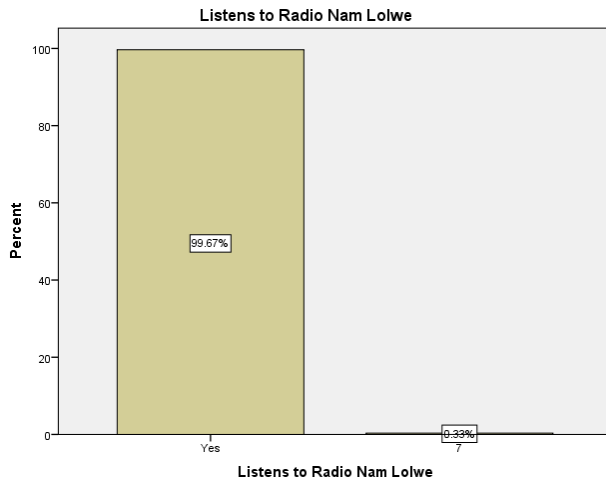
Source: Field Survey, 2022

There seems to be no specific programs preferred by the majority of respondents. The study shows that listeners prefer a whole range of programs which include news, entertainment, development as well as human interest programs all together.

4.3:4) Listens to Radio Nam Lolwe

The researcher sought to establish the popularity of radio Nam Lolwe among the residents and the results are presented on figure 4.3.4

Figure 4.3.4: Listens to radio Nam Lolwe



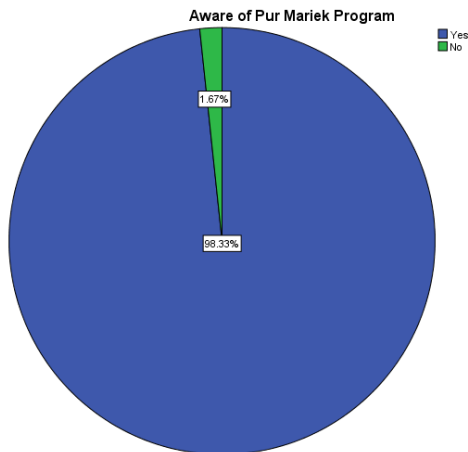
Source: Field Survey, 2022

With the exception of the missing data, all the respondents listen to radio Nam Lolwe as indicated by 99.7% listenership. This means that the radio is one of the best means of sharing information that can help improve food security.

4.3:5) Aware of and listens to PurMariek Program

The researcher sought to establish whether residents are aware of the agricultural program *PurMariek* on Radio Nam Lolwe and Listens to it.

Figure 4.3.5: Aware and listens to PurMariek program



Source: Field Survey, 2022

From the survey, *PurMariek* is popular among residents of Kisumu Rural sub-county. However, the adoption of the media message to improve food security is hindered by some factors beyond farmers control. From interview with key informants, such factors include the high costs of agricultural inputs. One of the farmers interviewed said that the radio program’s content is rich but the application of knowledge gained from the media message is hindered by poverty hence inability to afford recommended farm inputs.

Another key informant, the producer of the radio program *PurMariek* feels that even though the media is doing its part in promoting food security by sharing information to help improve farming activities, other stakeholders in the sector may not be doing their parts and the media cannot force them.

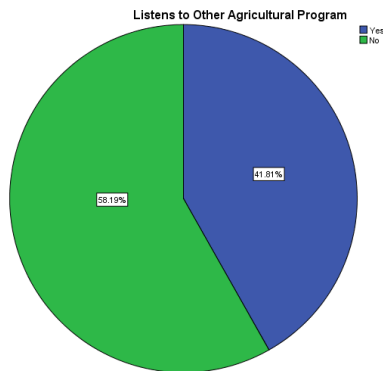
“There is need to bring on board policy makers when coming up with agricultural radio programs so that the efforts are inclusive. For instance, we have the county agriculture department where office bearers may not be keen on listening to agricultural media

messages. This is probably because such officers rely on other stakeholders other than the media when making policies. The producers of such programs as *PurMariiek* therefore ought to work together with policy makers for inclusivity purposes,” County agricultural officer explained.

4.3:6) Listens to other agricultural radio programs on other radio stations

The researcher sought to find out whether farmers do listen to similar radio programs on other radio stations and the findings are shown below.

Figure 4.3.6: Listens to similar program as PurMariiek on other stations



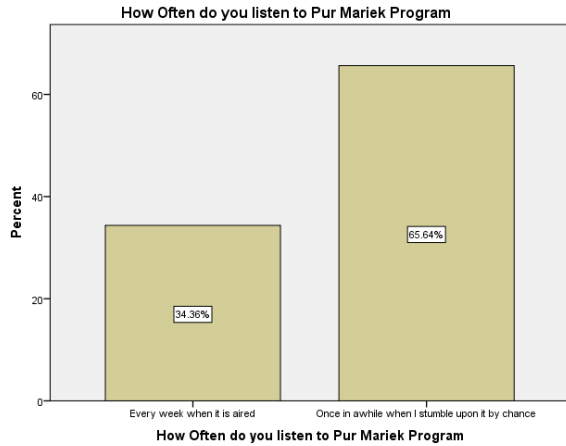
Source: Field Survey, 2022

Even though residents seem to prefer *PurMariiek* when it comes to agricultural radio program, a considerable number of residents do listen to similar programs on other stations, these includes the national broadcaster KBC, *Radio Ramogi*, Citizen Radio among others.

4.3:7) How dedicated are the respondents to the radio program PurMariiek

The researcher sought to establish how interested the people are in following the weekly radio program *PurMariiek*. The level of respondents' dedication to the program is demonstrated by whether they listen to the program on weekly basis as it comes or only when they stumble upon it. The results are indicated as follows:

Figure 4.3.7: How often do you listen to the agricultural radio program



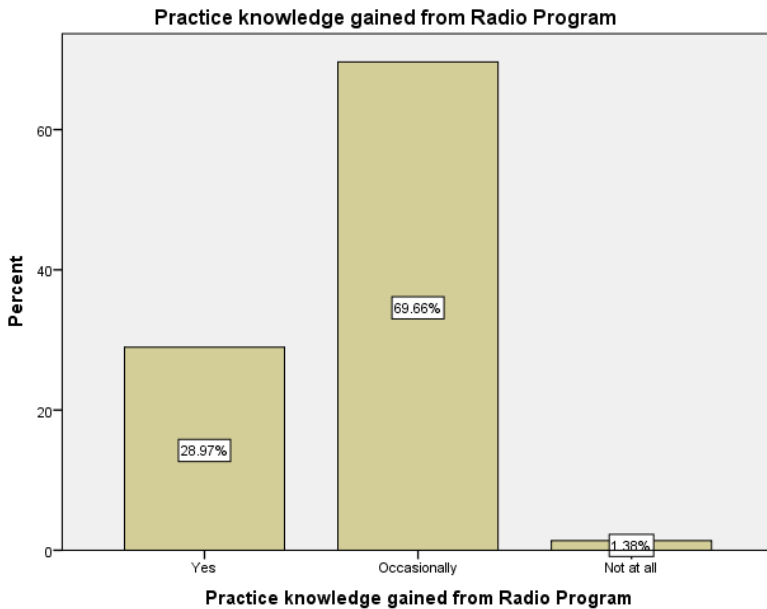
Source: Field Survey, 2022

From the survey, it is apparent that the respondents are not so much keen on the program as the majority, more than 65% only listens to the program when they stumble upon it. However, 34.6% of the respondents are dedicated to the program as they follow it every week. These statistics show that the message is always available to the population, the problem is the adoption of it to result into food security.

4.3:8) Utilization of information received from the program

Still on objective one which is to investigate the uptake of information on food security. the researcher sought to answer the first research question; how does the program PurMarieK contribute to the four dimensions of food security as such, the researcher sought to establish whether the agricultural information received from the radio program is applied by the farmers in their agricultural activities in bid to improve their food security and the response is as follows:

Figure 4.3.8: Practice knowledge gained from agricultural radio programs



Source: Field Survey, 2022

The results from the quantitative survey indicate that the majority of those who listen to agricultural radio programs only apply the knowledge gained occasionally. This is at 69.66%. Those who do put the knowledge into practice stands at 28.97% while 1.38% of those who listen to such programs do not apply the knowledge in their agricultural practices.

Following in-depth interview with a farmer from the sub-county, the reason why many of them only apply occasionally the information they get from the media is because of two things: one, the costs of farm inputs, for instance, the costs of improved seeds and fertilizers being recommended by the media are not affordable to many rural peasant farmers. As such, the majority of them can only go with what they can afford. The theory of diffusion of innovation comes to play here where by the relative advantage as well as compatibility as characteristics of an innovation are impacting on the adoption process. The majority of farmers in Kisumu rural subcounty have chosen not to adopt the innovations by the media because they cannot afford them. It can be said that the innovations are not compatible to their budgets.

“A peasant farmer in the village may listen to the program and be knowledgeable about the improved seeds or fertilizers that would greatly improve his farm production, but due to poverty, he may not be in a position to purchase them. Similarly, climate change effects are beyond farmer’s control, they might do their best to ensure quality production but then

effects of climate change which might come in form of drought or floods may adversely affect the production.” A key informant, an agricultural officer from the county explained.

The second reason is that the majority of farmers only manage to get information relevant to their situations once in a while. For instance, theirs may be pig or poultry farming while what is presented in a radio program is about fertilizers, which concerns horticultural farmers. This challenge the agenda setting theory used in the study as farmers choose to ignore the message since it does not concern them. One of the key informants, a farmer from the region shares his experience which best illustrates the situation:

“From time to time, I may pick one or two lessons from a program and apply to my situation which is tomatoes farming. However, most of the time, I choose to ignore the program because the topics being discussed do not concern my type of farming. However, what has had a great impact on my farming activity is an exchange program organized by one of the local NGOs for farmers to visit and learn from other farmers who are doing better in other counties. The exchange program gave us an opportunity to visit farmers in Meru and Kiambu in Central Kenya where horticultural farming is doing quite well. We got to observe, listen and learn what they were doing and this is what most of us adopted. Through the exchange programs, we obtained contacts which we could always use to consult each other from time to time over an issue of concern. The radio or tv programs or magazines are only there to reinforce the message we have learned from our peers.”

Another key informant, an agricultural officer further explained that other issues affecting food security which are beyond the media message include competition for land space for other uses as there might be just a small piece of land which might not be adequate for production of sufficient food crops; also the issue of people’s preference in terms of what they wants to do, for instance, many people in their prime time may prefer other engagements such as formal employments to farming, thereby leaving only a few people to engage in farming. There is also the lack of adequate production industries who would address the issue of value addition. Since agricultural products are season dependent, the agricultural sector is often faced with situations of temporary glut which only last shortly and thereafter the shortage accompanied with high prices. The cottage industries would therefore be the best intervention so that we can add value

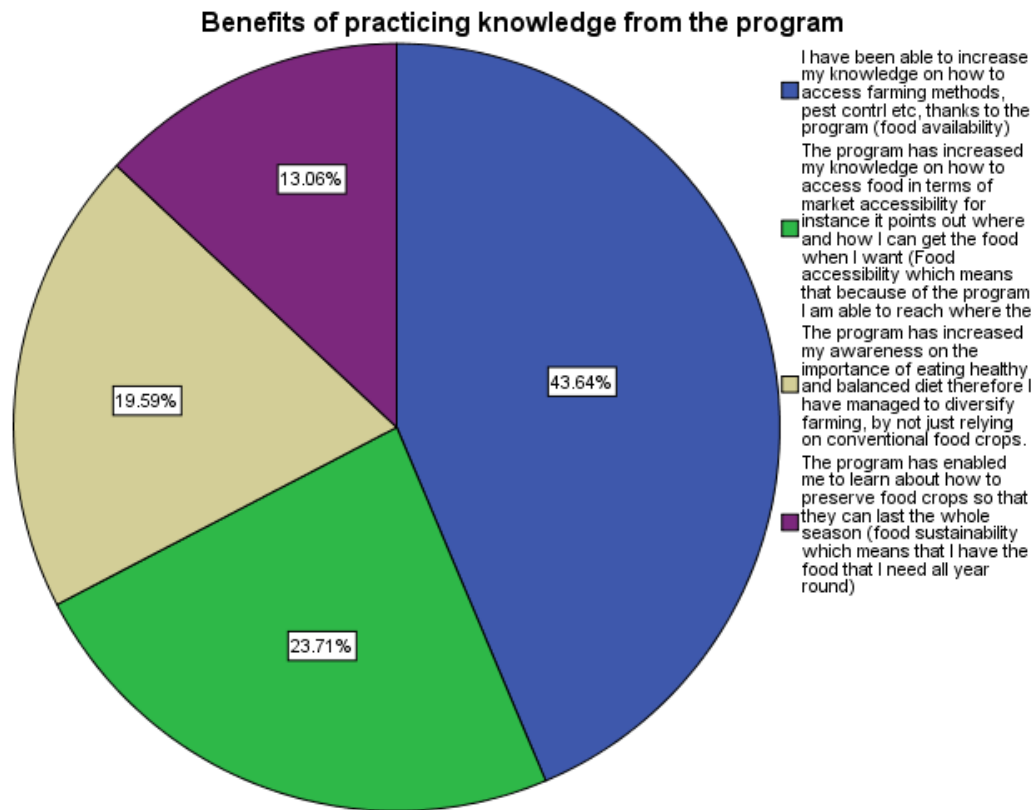
to the products and also increase shelf life. These impediments are still a threat to food security despite the media focus on agriculture.

4.3:9) How farmers have benefited from the program

The study sought to establish whether the content of the agricultural programs adequately address the four dimensions or pillars of food security using the agenda setting theory. From the in-depth interview with the producer of the program, the researcher established that Radio Nam Lolwewas established in 2007 and in 2015, the station introduced the agricultural program *PurMariék* which targets the age group of between 26 and 60 years old and the program's objective is to create awareness thus change people's attitude from the traditional old methods of farming to commercial types of farming (agribusiness). The program encourages farmers to adapt new farming methods and technologies that would ensure high productivity. More focus is therefore devoted towards increasing agricultural production (food availability) such as land preparations, promoting use of technology (irrigations), use of certified seeds, pesticides and herbicides and fertilizers as well as post-harvest handling.

From the survey among the farmers, the researcher established that out of the four pillars of food security, the program tends to focus on improving food availability as the majority of respondents at 41.3% indicated that they have been able to increase their farm production thanks to the program. The results from the survey are as indicated in figure 4.3.9

Table 4.3.9: Benefits of practicing knowledge gained from the program



Source: Field Survey, 2022

5.1 Conclusion

Having analyzed data from this study, it is justified to say that radio remains an effective medium of communications especially in the rural areas as practically every household has access. Through the agricultural program *PurMariék* radio is effectively promoting food security by imparting information geared towards educating farmers in Kisumu Rural Subcounty. However, putting into practice the information shared by the media remain a challenge to many as other factors such as high costs of farm inputs come to play. Therefore, regardless of the advice from the media, farmers can only make do with what they can afford when it comes to managing their farms.

5.2.1 Uptake of information on food Security (availability, accessibility, utilization and stability) from the media.

Small-scale farmers are well aware of agricultural radio program and consider media especially radio as major source of agricultural information. However, the application of information shared by the media in bid to help improve food security in the region is often

challenged by factors beyond the farmer and the media's control. These factors include the high costs of farm inputs which the majority of poor small-scale farmers in the villages are able to afford. The other major factor is about timing of the media content and the farmer's needs whereby the media may be focusing on an important topic which is not related to the interest of a particular farmer who is listening to the program. Also, failure by the policy makers to incorporate the information shared by the media in the policies they make is another setback to the uptake of information on food security.

5.2.2 Does the content of agricultural programs (in this case PurMariek) adequately address the four dimensions or pillars of food security

The study established that more of the agricultural information shared by the media lean more on the availability aspect of food security where they tend to enlighten farmers on how to improve and increase production. Even though the media often strives to feature other dimensions of food security, there is still more room for improvement.

5.2.3 What other sources of information on food security are available to small scale farmers and how do these alternative sources of information compare to the media in terms of reliability and effectiveness

Traditional sources of information such as neighbors, family members and friends are still considered by the rural farmers. However, with the emergence of media taking precedent in disseminating information relating to agriculture through radio, TV, magazines and newspapers, there is a big shift as more farmers now turn to the media for information.

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