

Final evaluation report:

FarmQuest: reality radio in Mali to encourage youth to consider “farming as a business”



March, 2014

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Acronyms and terms

AFRRI: African Farm Radio Research Initiative

ALC: Active listening community

CC: Control community

Daba Kamalen: Another name for FarmQuest in local Bambaran dialect

Daba Question: Voice-based phone system or “IVR”

FGD: Focus group discussion

FRI: Farm Radio International

ICT: Information and communication technologies

IVR: Interactive voice response (see Daba Question)

Mobenzi: Formerly known as Mobile Researcher, phone-based survey system

NGO: Non-governmental organization

PLC: Passive listening community

PRC: Participatory radio campaign

SIM: Subscriber identification module (card used for mobile phone subscriptions)

SMS: Short message service (text messaging)

VOICE: acronym used by FRI to measure quality of participatory radio programming

VSAT: Very small aperture terminal (used for Radio Fanaka internet access)

Executive Summary

Report highlights

- FarmQuest was both widely listened to in the target region of Fana as well as highly rated by the listening audience. This includes a large number of youth.
- ICTs were used to make the program more interactive but were mixed in their success. The “beep-to-vote” system was widely used while the “Daba Question” interactive voice response system was used much less. It was particularly encouraging to see that the highest level of use of these modern ICTs to connect with the program was among young females.
- The FarmQuest programs resulted in very high levels of knowledge gain from listeners. When comparing respondents in listening communities versus in the non-listening controls, listeners performed roughly 3-4 times better on the knowledge quiz than their counterparts in villages who did not listen.
- The outcome evaluation revealed that attitudes towards farming are generally positive across the board (in listening and non-listening communities). However, there are still biases towards urban environments in terms of perceived opportunities for work available. Attitudes seem to be very strongly held in the listening region.
- Survey respondents expressed that local services, including extension service, increased in quality since the beginning of the FarmQuest program. Similarly respondents in the survey have seen higher interest from youth in agriculture in their communities since FarmQuest began.
- Lastly, there were very high numbers of survey respondents who intend to start practicing some of the agricultural techniques from FarmQuest sometime in the future (more than 90% in listening communities).

Summary

FarmQuest was a new type of project for Farm Radio International and indeed for the communication for development field generally. Radio dramas are very common across sub-Saharan Africa, but bringing the element of true reality into the programming and introducing a competition element is new. This pilot project has allowed Farm Radio International to test a new and exciting medium to deliver valuable, timely, and most importantly, entertaining content to rural populations in Mali.

Where this project succeeded with flying colours was its innovative use of story-telling and entertainment which is unfortunately often sorely missing from agricultural programs across Africa. Radio Fanaka’s ability to deliver complex and well-thought-out programming has increased substantially. Their capacity to deliver engaging programming will be a major asset to their station for years to come. Indeed, before the project began most programs on Radio Fanaka were almost of an ad-lib nature, lacking the levels of professionalism which were clearly apparent in FarmQuest.

The consistent quality of the FarmQuest episodes and the positive audience reaction to them are very encouraging since before this project it was not clear whether this audience would respond positively to this new radio format.

Through both quantitative and qualitative measurement during the evaluation of FarmQuest it was found that generally the reality radio format is very effective at: supporting a large number of listeners, increasing knowledge of the listening audience and mobilizing a change in the way local services such as

agricultural extension are accessed and provided. Changes in attitudes among youth in the listening region were more mixed. On one hand, youth (as well as adults) still perceive there to be more possibilities to make money in the city. On the other, youth still showed a very positive view of farming generally and have been reported to be showing more interest in agriculture since FarmQuest began airing.

FarmQuest experienced several major challenges which were overcome but should be addressed in any future scale-up of this approach. First, access to credit and financial/business management services is severely lacking in Mali. In future projects it will be crucial to include financial service organizations in the project from the very beginning. Furthermore, it is clear that farmers are demanding training in the management of their farming enterprises. For future work, it would be advantageous to include this as a major portion of the FarmQuest broadcast.

Given the challenging environment in Mali at the time of implementation of FarmQuest it is very promising to see such large levels of listenership, knowledge gain, and perceived increases in service provision in the listening area. If FarmQuest can have such a positive impact on a country that is in the midst of conflict and political instability, it is reasonable that the model can work in other contexts as well.

Since FarmQuest was a pilot project, the length of the program was fairly short, especially for a program which was aiming to shift strongly held attitudes in youth. Further research needs to focus on FarmQuest in a “multi-season” format which could run for much longer and give more opportunity for listeners to have interactions with one another, the radio station, and local advisory staff.

Therefore, Farm Radio International looks forward to taking the lessons learned during FarmQuest and applying them to both a scaled-up version in Mali but also other reality radio programs in other countries in sub-Saharan Africa which would feature a substantially longer program run (several years). This evaluation will provide valuable guidance in identifying future research questions and areas for improvement with this new radio format.

1.0 Introduction

FarmQuest was conceived as a pilot project to test a new reality radio methodology. The format is new to sub-Saharan Africa and in fact it is one of only a handful of projects worldwide that have taken the reality model from television and applied it to the medium of radio. The aim of the project was to engage young people in Mali to show how farming can be a lucrative business and livelihood choice. Farm Radio International (FRI) wanted to illustrate through radio how agriculture can be a profitable business, and not just a means of subsistence for young people.

The project was known as Daba Kamalen in the local Bambara dialect spoken widely across Mali. This translates as “best young farmer of the year.”

Youth unemployment in Mali is high. The vast majority of the labour force in Mali is engaged in subsistence farming, but many young people do not see agriculture as a “career choice” that can lead them out of poverty. Too often, they remain “idle” when the best opportunity to earn a decent living lies right in front of them: “farming as a business.”

Supported by the *Rockefeller Foundation*, the project follows the progress of six young candidates, three men and three women, through a radio reality series produced by Radio Fanaka and broadcast to over 100,000 people in the region of Fana, Mali. Listeners were encouraged to call in, leave comments, and vote for their favourite candidates. The main goal over this one year grant period was to gain some insight into the effectiveness of reality radio as a format. Will audiences in rural Mali relate to the format? Is it entertaining? Is it culturally viable? And lastly, does it have a lasting effect on the knowledge, attitudes and practices of youth who have a perception of farming as a job for their parents or grandparents.

FRI also wanted to pilot FarmQuest in order to gain a thorough understanding of how best to make reality radio that will encourage young people to take up farming in Mali and elsewhere in sub-Saharan Africa.

1.1 Rationale for the project

In 2010, Farm Radio International completed a 42-month action research project entitled African Farm Radio Research Initiative (AFRRI) to discover, document, and disseminate best practices for using radio-based communications to enhance food security in Africa. During AFRRI we gathered conclusive evidence that farm radio programming, when it meets standards of quality and consistency, is very widely listened to and leads to remarkable gains in knowledge by small-scale farmers. Specialized programs lead to the uptake of a more productive agricultural practice by up to 48% (and, on average 21%) of farming families in listening areas (see graph). We learned how to engage audiences with the use of a variety of ICTs, and we learned the importance of including farmers at every step of the process¹.

FarmQuest was a new direction for Farm Radio International that built on and complemented FRI's experience with participatory radio campaigns (PRCs) developed through AFRRI. Through PRCs,

¹ For full reports on the findings, see:

Participatory Radio Campaigns and food security: How radio can help farmers make informed decisions:
<http://bit.ly/farmradioprc>

broadcasters offer farmers information and options, and encourage farmers to make an informed choice to take up a specific new practice (such as intercropping maize and beans). PRCs take a “story based approach” by featuring the daily experiences and challenges and successes of ordinary farmers. The perspectives and interests of farmers are put at the center, and farmer participation is integrated from the planning stages through to evaluation. For the organizations we work with, it is a sophisticated extension method, which produces measurable results. FarmQuest borrowed the basic tenets of PRCs, to ensure an entertaining and interactive format for listeners, this time specifically targeting young potential farmers.

1.2 Working in a challenging environment

The FarmQuest project began at a very challenging time for Mali. The military coup which began on March 21, 2012 and the political tensions and conflict in the north which followed, created an uncertain environment for development work in the country. However, FRI decided to remain in the country and move forward with the planned work on FarmQuest in 2013 despite the relative uncertainty in the country.

Because of the political instability the project was slightly delayed and began later than anticipated in December 2012.

1.3 Structure of the final evaluation

The final evaluation for FarmQuest uses three main evaluation tools:

1. A detailed household outcome evaluation survey (*see section 5.0 and 6.0*)
2. Key informant interviews (*see section 8.0*)
3. Study of radio reach and interactivity based on interaction analytics (*see section 2.2 and 7.0*)

Between these three main tools, we hope to provide several types of measurement which highlight the impact and effectiveness of FarmQuest, both qualitative and quantitative.

2.0 Description of radio programming

FarmQuest's radio methodology stems out of FRI's work on radio drama and story-based approaches to participatory radio programs. The project budget allowed for six episodes to be produced each consisting of elements of in-studio and field-based recording. In a scaled-up version of FarmQuest it would be preferable to have more than six episodes as six is barely enough to introduce characters and get the program moving and the audience hooked on the content. Because of this reality, FRI staff and advisors decided to expand the number of episodes to twelve. This would give more time for the audience to interact with the program as well as greater latitude to introduce characters and visit content in the depth necessary for the listening audience to learn about the agricultural technologies and techniques chosen.

The program therefore included the six originally planned episodes which aired every two weeks, but with an additional six episodes done completely live on "off weeks." *See section 2.7 for audio files of each episode.* These live episodes served the purpose of providing a forum for listeners to interact in an immediate way with the broadcast and revisit subject matter from the previous week's pre-recorded reality episode.² The live episode featured call-ins and call-outs with the audience, voting from the audience as well as more in-depth interviews with the candidates, agronomists, extension officers and other stakeholders.

2.1 Choosing a radio partner

The team in Bamako chose Radio Fanaka, a station in the Fana region of Mali which is a major agricultural region. A radio station selection report was produced on March 25, 2013 outline the rationale for Radio Fanaka as the radio partner in this project:

- The station has had previous experience working with FRI and is a current radio partner with FRI (receiving training materials, scripts etc.)
- The station participated in a Bill & Melinda Gates Foundation supported project with FRI which introduced the station team to the FRI's Participatory Radio Campaign methodology. This is a good foundation for producing farmer-centred, story-driven programming.
- The station is also fairly close to the FRI office in Bamako where staff are stationed, about 120km away. This would make project visits easier and more frequent than they would be if the selected station was farther from the capital.

Other potential stations included Jamana Radio in Koutiala and Fouta Radio in Yanfolila, both of which are very far from the office Bamako. In the end the choice of Fanaka made sense for this particular pilot given the limited time to execute the project. Using a well-trained and established partner will offer a good jumping off point for scaling up Farm Quest in future.

Furthermore, the team knew that the station had young, engaging staff who could manage the strains of relatively intense times of travel and field work.

² The inspiration for these live episodes came partly from the "after show" model used in North American television. Several shows currently on the air use this model to engage with audience in real-time

The hosts chosen for the show were perfect for a show targeting youth. Vieux Fatogoma Sanogo and Salimata Koné were chosen as the hosts for the show. Their dynamism as an on-air duo lent a very distinct light mood to the show and was extremely popular with audiences.



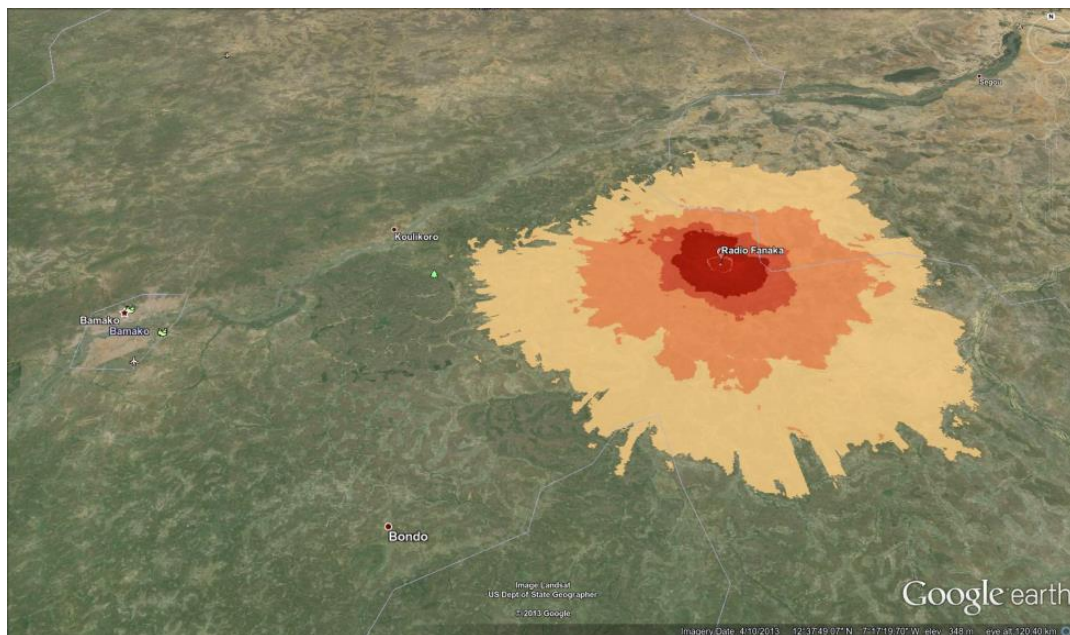
Left: Vieux Fatogoma Sango, **Right:** Salimata Koné, hosts of FarmQuest

2.2 Estimating reach

This project relied on the chosen radio station to reach not only a large audience but also a youthful demographic. Fana was an ideal location because it was found in formative research that many youth in the region had been moving to Bamako, the capital, for work as well as various gold mines in the region as opposed to staying in their communities.

FRI has developed a radio reach mapping system which estimates the coverage by any given station based on its transmitting power and surrounding geography. Fana is a very flat region of Mali, so the range of the station is quite far.

Figure 1: Estimated reach of Radio Fanaka



The above graphic shows the estimated reach of Radio Fanaka. By overlaying the reach of the radio station's tower with population data obtained from the most recent Malian census we are able to gather an estimate of the number of people who live in the coverage zone.³ The above diagram uses the 60dB darker orange contour as the area where we expect to see radio coverage. Within this coverage radius of roughly 40km there are an estimated 297,000 people. It is reasonable to assume that around 70% of this population is farmers, given the very common higher estimates of 80-90%.⁴ Therefore we estimate that around 207,900 people could potentially hear the FarmQuest programs.

2.3 Forming a National Steering Committee

As mentioned in the FarmQuest interim narrative report, it was important for FRI to facilitate the formation of an advisory steering committee for this project. Their role was to ensure the correct direction of the project and provide technical and scientific verification of agricultural techniques used in the program.

Local partnerships

The National Steering Committee for FarmQuest consisted of representatives from several other organizations working in the region. This was a crucial activity for the project for two reasons. First, it gathered agricultural advisors with very specific experience who could be relied upon for verification of specific agricultural techniques which were to be covered in the program. This enabled these organizations to act as “knowledge partners” for the project as well as to promote already existing services to the listening audience. Second, running this type of project in the region required a careful

³ AfriPop uses census data and does estimated projections based on population growth trends.

<http://www.worldpop.org.uk/data/methods/>

⁴ <http://www.fao.org/ag/agp/AGPC/doc/Counprof/Mali/mali.htm>

acknowledgement of other stakeholders in the region and to gain their support as per the local customs in Mali.

The local partnerships included:

- l'Institut d'Economie Rurale du Mali (IER)
- l'Institut Polytechnique Rural (IPR / IFRA)
- le Projet de développement de l'Aviculture au Mali (PDAM)
- la Direction Nationale de l'Agriculture (DNA)
- l'Agence Nationale pour la Promotion de l'Emploi au Mali (ANPE)
- le Studio de Production Maestro Song
- l'Office des Radios et Télévision Libre du Mali
- la chaîne de TV privée AFRICABLE
- la Coordination Nationale des Organisations Paysannes (CNOP)
- la Compagnie Mamadou Tambadou et Frères

Le Studio de Production Maestro Song, l'Office des Radios et Télévision Libre du Mali and la chaîne de TV privée AFRICABLE provided cross promotion for FarmQuest using television. Maestro Sound helped by featuring a local song competition which featured songs for each FarmQuest contestant. *See section 2.8 Integrating Malian music for more information.*



The FarmQuest steering committee posing in front of the Farm Radio International office in Bamako, Mali

2.4 Selection of mentors and contestants

As mentioned in the interim narrative report, the selection of participants was a very important aspect of this project.

Participant selection for this reality program was an iterative process. In April 2013 the chiefs of the target villages that were to be the location for potential contestants were invited to submit a list of five candidates from their village. From these candidates the six final contestants were to be chosen.

A commission of elders was formed to assist in the selection of these final candidates. In this commission were:

- Oumou Coulibaly, Director of Radio Fanaka
- Mamadou Konate, Member of Chambre d'Agriculture de Fana
- Bakary Bagayogo, Member of Chambre d'Agriculture
- Drissa Traoré, municipal counselor
- Amadou N Fomba, representative of local youth organisation

The commission interviewed each contestant with various members asking questions about the candidates' background, marital status, age, schooling, specific project as well as his or her experience in that particular branch of farming, their specific needs in terms of material and financial support and advice, their plans for the future.

A short list of ten candidates (four women and six men) was selected based on the above criteria, their openness to provide details, ideas and information as well as their general personality traits (ability to speak easily in a relaxed, natural manner). This short list was announced on Radio Fanaka the next evening (May 9th).

The final selection of the participants was done by staff at Radio Fanaka as well as FRI staff. This was done by watching video footage that was gathered of each candidate.




Table 1: The final contestants and advisors for *Daba Kamelen (FarmQuest)*:

Candidate	Gender	Age	Advisor	Village	Activity	Notes
Kafunè Mariko	female	20	Alimata Diarra	Tingole Banankabougou	Raising goats for milk, cheese production)	2 children. Pleasant, open personality
Fanto Samake	male	18	Bougou Coulibaly	Tingole Banankabougou	Livestock, cattle	Speaks French, assists Bougou, has one cow
Awa Doumbia	female	27	Maimouna Coulibaly	Dien	Planting peanuts	4 children/ pleasant, talks easily, no access to land
Diakaridia Fomba	male	35	Tafara Fomba	Dien	Poultry, egg production	Articulate, left the farm for a larger town but now wants

						to return
Mamadou Diarra	male	26	Mamoutou Diarra	Ballan	Planting corn	Bachelor, has just returned to the region
Salimata Traoré	female	32	Minata Coulibaly	Wakoro	Market gardening	4 children, nice but reserved, father-in-law has thwarted her efforts to farm.

Each contestant offered an engaging story and personality to FarmQuest. This was by design. It was not enough for these youth to simply be interested in starting an agricultural business. They also needed to offer a personality which would shine through during the reality radio episodes. As detailed in the interim narrative report, each contestant was supported by a trusted local advisor who was from the local community and knew the contestant personally. These advisors were an integral part of the program and they were there to “show the ropes” to the contestants in their farming business.

Table 2: The FarmQuest contestants and personal details

	<p>Candidate: Kafune Mariko Gender: Female Age: 20 Village: Tingole Banankabougou Activity: Raising goats for milk and cheese production</p>
	<p>Candidate: Fanto Samake Gender: Male Age: 18 Village: Tingole Banankabougou Activity: Raising cattle</p> <p>Fanto is an articulate young man. He attended high school, speaks French, and is highly motivated about raising livestock primarily for milk production. Fanto already helps his mentor, Bougou Coulibaly, in his field. Fanto's mother has given him a cow to start his own herd.</p>
	<p>Candidate: Hawa Doumbia Gender: Female Age: 27 Village: Dien Activity: Peanut farming</p> <p>Hawa is a mother of four from a village on the outskirts of Bamako, Mali's capital and largest city. She wanted to grow peanuts, but didn't have the oxen and plough needed for this kind of agriculture. As a participant in FarmQuest, Hawa has access to credit, allowing her to buy an ox and plough. Her village chief was so excited about the idea of supporting women's initiatives that he even granted Hawa more than two acres of land to start her farm.</p>



Candidate: Diakaridia Fomba

Gender: Male

Age: 35

Village: Dien

Activity: Poultry farming

Diakaridia is the oldest of the FarmQuest participants, but, like many young people, he's still struggling to put down roots. As a teen, Fomba showed interest in raising poultry. But after a while he became restless and left Dien for several years. Fomba sought better opportunities in the city, where he survived doing various odd jobs. After a while, he became discouraged with his financial situation. He came to the conclusion that the only way for him to get ahead would be to return home and do what he knows best – raise poultry. While he already has a traditional chicken coop, FarmQuest will allow him to build a more modern one and expand his business.



Candidate: Mamadou Diarra

Gender: Male

Age: 26

Village: Ballan

Activity: Maize farming

Mamadou is a bachelor and has just returned to the region of Ballan. His local advisor is Mamoutou Diarra, an experienced maize farmer who has been teaching Mamadou about various aspects of planting, including the best period in which to sow corn after the rainy season is fully established.



Candidate: Salimata Traore

Gender: Female

Age: 32

Village: Wakoro

Activity: Market gardening (growing a variety of vegetables to feed the family and sell at the market)

Salimata is a mother of four and has been constantly thwarted in her efforts to practice market gardening by her father-in-law, who feels that this activity would limit the time she devotes to planting, cultivating, and harvesting millet in the family fields. As a candidate on FarmQuest, Salimata is in a stronger position to start her own market garden project with help from her mentor, Minata Coulibaly, and moral support from the village women's association.

2.5 Formative and market research

A preliminary study of youth employment and agriculture in Mali was conducted by FRI staff in Bamako with help from Moumine Traoré, a local agronomist and part of the FarmQuest steering committee. This was done through brief desk research as well as detailed formative research in the form of focus group discussion on the ground in the Fana region. This research identified the major sub-regions in the area and the individual villages that make up these sub-regions and the populations in each. Arrangements were made with the municipal administrative and political authorities in each of: Tingole, Ballan, Dien and Wakoro. In each of these villages focus group discussions were conducted with the following objectives:

- Make an inventory of radio listening preferences by youth
- Learn about agricultural entrepreneurship among youth in the project area,
- Collect and analyze secondary data (local government data)
- Conduct a discussion with all partners / key stakeholders of the project
- Assess the level of knowledge, skills and practice of youth in agricultural entrepreneurship and their attitudes towards farming generally.
- Evaluate existing communications strategies that can be referred to or linked with as part of the FarmQuest program .

Both male and female participants were part of each discussion, however women were given specific attention to garner a realistic view of their attitudes towards farming. .

Findings:

Generally, the focus group discussions revealed:

- All regions in the project are dominated by agriculture as a the main industry
- Poor soil and natural resource management (ie. bush burning) are widespread
- Radio Fanaka is widely listened to among the population
- There is a presence of youth associations in the project area
- There is an exodus of youth from agriculture to mining as well as to larger cities in search of waged employment
- Youth have little concept of agricultural entrepreneurship
- There is a need for more financial services in these villages in order to facilitate new business activity
- There is a need for business management training for both youth and adult farmers
- Information about agriculture is lacking, extension services are not adequate, and youth need more access to agricultural advice

These findings directed the radio production work on FarmQuest by confirming the dominance of Radio Fanaka as the most listened to and most trusted station in Fana and surrounding areas. This was crucial in that it allowed the project to start with a good baseline listening audience which could build up over

the progress of the program through word of mouth. The lack of financial services and agricultural extension services for farmers is a concern in the area. The formative research reminded the team that on-farm extension may not always be available in the communities and the level of support (when it is there) may not be adequate. For FarmQuest, this meant that the lack of financial services for farmers and inadequate extension system must be an integral part of the program. Throughout the FarmQuest episodes these issues were integrated into the broadcast, showing realistically the challenges which face most farmers in the region.

2.6 Ensuring consistent high quality standards

FarmQuest built on the methodologies developed by Farm Radio International to deliver interactive, entertaining and educational radio programming for farmers. In particular the VOICE standards for radio production were used as a map to ensure programming is relevant and valuable to small-scale farmers.

FRI VOICE standards

Farm Radio International has identified the most important characteristics for radio programming that serves smallholder farmers. The characteristics are summed up in the acronym "VOICE".

V – The program values smallholder farmers ("farmers"). It respects them for their hard work producing food for their families and the markets, often in the face of major challenges. It reaches out to them to understand their situation and is dedicated to supporting them in their farming work and in their other activities to improve rural life.

O – The program provides farmers with the opportunity to speak and be heard on all matters of interest to them. It is not centred on telling SHFs what to do. Rather, it is centred on encouraging smallholder farmers to name their concerns, discuss them, and organize to act on them.

I – The program provides farmers with the information they need, from the most useful sources, when the farmers need it.

C – The program is broadcast consistently and conveniently. Farmers count on it. It is broadcast on a reliable, regular basis, at least weekly, at a time when farmers are available to listen.

E – The program is entertaining as well as useful! The program attracts large numbers of farmer/listeners, appeals to them, and is enjoyable. There is no excuse for boring farm radio programs!

These VOICE standards were used during training of radio staff and featured a comprehensive set of tools to ensure these five criteria are being met.⁵







⁵ Ward, Doug. Farm Radio International. "Seventy-five ways to fix your farmer program." <http://farmradio.wpengine.netdna-cdn.com/wp-content/uploads/75-ways-to-fix-your-farmer-program-Dec-2012.pdf>

2.7 Audio recordings of episodes

Audio recordings of each of the six reality episodes as well as the live episodes which were aired on off-weeks were collected and uploaded to Sound Cloud to listen to. Each of the six reality episodes feature an English transcript except for episode 5 which is still being translated from Bambara to French.

We invite you to listen to each episode. All of the episodes including the live recordings are available here: <http://bit.ly/farmquestaudio>

Table 3: FarmQuest episodes (audio available on Sound Cloud)

Episode	Link
1	 <p>farmradio FarmQuest: Episode 1</p> <p>39:46</p>
2	 <p>farmradio FarmQuest: Episode 2</p> <p>58:35</p>
3	 <p>farmradio FarmQuest: Episode 3</p> <p>49:08</p>
4	 <p>farmradio FarmQuest: Episode 4</p> <p>1:03:07</p>
5	 <p>farmradio FarmQuest: Episode 5</p> <p>1:12:00</p>
6	 <p>farmradio FarmQuest: Episode 6</p> <p>1:03:45</p>

2.8 Integrating traditional Malian music

Music is the glue that connects much of Bambaran culture in Mali. And the radio is no different. Because of its importance, it was an obvious fit for FarmQuest to include a musical element to add entertainment value to the production.

Therefore the team decided to recruit six young Malian musicians to write songs for each candidate. In Mali “praise songs” are a common feature of music. These are songs which aim to praise an individual in an often improvised song. Therefore these six musicians each produced and recorded a song which was featured on an episode of FarmQuest.

These songs are also finding a second life on the cable television program *Tungaguna* produced by Boncana Maiga, which highlights West African stories. FarmQuest will be a feature of this program in early 2014. Maestro Sound, a local production company provided the funds necessary for each musician to travel, meet with the contestants and ultimately produce the song.

It is this type of entertaining element which gives programs like FarmQuest a life which resonates with the listening audience.

3.0 Building local capacity

3.1 Training the radio production team

Actual recording and gathering of material for the program was scheduled for the beginning of May, 2013. Therefore a preliminary brush-up workshop was conducted by Erica Pomerance (the hired production consultant on the project) and FRI staff in April that brought relevant Radio Fanaka staff that were to be involved in this project on board and trained them on basic gathering of “wild sounds” and interviewing techniques.

In-station training was initially scheduled for mid-July but was delayed due to the upcoming Malian presidential elections which took place at the end of July. These elections caused a two week delay in project activity due to the virtual shutting down of the radio station during this time. Heavy surveillance by security forces in Fana and Bamako were present during this two-week period. Ramadan also fell in mid-July in 2013, which would have created a difficult environment for a training workshop (ie. the participants would be fasting during the activities).

A mid-term correction in timing of the in-station training program therefore re-scheduled the training to the second week of August.

- Basic call-in and call-out procedures
- Integrating voice services into the programs
- Basic real-time SMS or “beep” voting

The formative research findings signaled that the formation of a technical production team at Radio Fanaka was necessary at the beginning of the production phase of the project. The team was set up as follows:

- Two hosts (one male, one female)
- A production technician (editing and general production)
- A staff responsible for administration, including transcription and reporting

These main staff were charged with the bulk of the work at the radio station but also received support from other Radio Fanaka staff, FRI staff, and consultants and even support from a host that works at the Office of Radio and Television of Mali (ORTM). The on-the-job training of this team was necessary in order to introduce Radio Fanaka to an entirely new mode of production. Previously to FarmQuest, very little pre-recorded and digitally edited content was produced. FarmQuest required this skill to be cultivated within this team. By the time the sixth episode was produced the team was doing it entirely on their own. This was a true testament to the quality and value of the radio station capacity building in this project.

Most of the training of radio staff was done by FRI local staff, Erica Pomerance (the main production coordinator on the project) and two journalism interns from Carleton University in Ottawa, Canada.

3.2 Expanding the FarmQuest impact - training of other radio stations

As reality radio production is a new approach in Mali, the FRI team decided to invite representatives from fifteen other community radio stations across Mali to attend one of the sessions on developing reality radio programs. A total of twenty broadcasters from other stations were present for various elements of production of episode 4 of FarmQuest, effectively expanding the reach of this project to other regions of the country. Regions represented by broadcasters included: Kolokani, Ouelessebougou, Sanankoroba Kérouané, Touba, Zana, Koula, Barouéli, Siby, Nonzombougou, Fana, Dioila, Konobougou, Tissala, and Sanso .

3.3 Information and communication technology (ICT) training and procurement

Several training sessions were run with Radio Fanaka around use of modern ICTs which were being used in the beep-to-vote, Daba Question and audio editing systems. The ICT and Radio Manager based out of Arusha, Tanzania as well as a Program Officer from Gram Vaani based out of Delhi, India were called upon to run three days of face-to-face training at the station. Throughout the production of FarmQuest episodes the station gained valuable training from the Carleton University Journalism Department interns as well as FRI staff on audio editing, scripting and field recording.

4.0 Broadcast production and transmission

4.1 Initial setup and FarmQuest episodes

Business plans and gaining credit

In January, 2013 the initial setup for each contestant was building operational business plans with support from local business experts and money lenders. In Mali, this is a requirement in order to get credit from local microcredit lenders and banks. This process proved to be a challenge for both the contestants and the project teams, given this is an area of work not normally a focus for FRI. This process proved very helpful for each contestant to envisage what they wanted to focus on for their project and how they planned to build their business.

However, local microcredit lenders had very stringent policies around giving small business loans and the process was challenging. In the end FRI ended up providing small \$500 start-up loans to contestants in order to speed up the process for contestants to buy inputs, seeds, supplies and equipment. In future implementations of a similar project it would be crucial to bring on a reliable and competent financial institution which was used to working with small-scale farmers given that this is not FRI's area of niche expertise.

4.2 FarmQuest Episodes

Episodes 1 & 2 Introducing the contestants

The first two episodes of FarmQuest focused on introducing the contestants. This process involved learning about their story, getting to know their personalities and understanding the challenges they face. These two episodes also introduced the two hosts of the show and the structure that each episode would follow. For example, showing the hosts traveling out to the field to meet with candidates and local communities on motor cycle was one of the first pieces in the program:

Extract from Episode 1 “Je suis candidat”



Photo: Vieux Fatogoma Sanogo interviewing a farmers for part of a FarmQuest episode

Vieux : Dear listeners, welcome to our program DABA KAMALEN, a radio reality series which is a competition between 6 young men and women farmers from Baninko county. I’m your host Vieux Fatogoma Sanogo.

Salimata Koné: I’m Salimata Koné. Together Vieux and I will host this great program in which 6 young people compete in the field agriculture, raising animals and growing crops. These young people will show you that agriculture and livestock can provide as good a living or better than any other type of work. Like numerous African youth, many young farmers have left the land to try their luck elsewhere. But after facing problems during their adventures, some decide to come back to the land, our mother who provides sustenance for us all.

Vieux : Dear listeners, you are also members of the jury who will judge our 6 candidates. They need your support. All we ask is that you vote for the candidate you most appreciate, whose farm project is the best in your opinion. The program will be broadcast each second week from 7 to 8 pm on Radio Fanaka. Listen attentively and give your

opinion afterwards.

Salimata : “But careful. It isn’t only a contest between men; talent women are also participants who can become a DABA KAMALEN.

Vieux : That’s not true, Salimata. We men are going to win.... This first program in the series introduces all 6 candidates, who present their respective projects.

(Balafon music as the radio team prepares to visit the villages)

Vieux: Salimata, prepare to visit candidate #1 whose name is Mamadou Diarra. He lives in Ballan. Mamadou Diarra plans to become a well-known producer of corn seed not only in Guègnèka commune, but farther away than Baninko on a national level in Mali. He is confident about his project.

Salimata: Vieux, have you checked your recorder? Are the batteries good ?

Vieux : Sure, I’ve checked everything, even the level of gas and oil in the motorcycle.

Salimata : Vieux, you know the roads are not great, drive carefully, so we don’t have a motorcycle accident.

Vieux : Salimata, you’d better wear slacks and sturdy shoes.

Salimata : That’s what I’m doing.

Vieux : (JOKING) Your feet are bigger than mine. If the bike starts sliding in the mud, you can put your feet on the ground to help keep the balance...

(sound of motorcycle revving up as they leave for Ballan)

Vieux : We’re off!

On arrival in Ballan sound of greetings between journalists and local population. We hear that Vieux has brought tea for Mamadou Diarra, and asks him to prepare it to drink during for their conversation.

(Ambient sound in the village : goats, sheep, farmers preparing their fields, women pounding millet)

Vieux : Mamadou, Candidate # 1, introduce yourself to our listeners.

Mamadou Diarra: I learned to farm because my parents are farmers, they enrolled me in religious (Koranic) school but during the planting season, I helped in the fields. They grow quite a lot of corn. That is why I learned to like corn. When I reached school age they signed me up, and I went until 9th grade. I stopped because school fees were too expensive, and I left for Bamako to help support my family. But I returned during planting season. After harvest, I left for Kayes. My first adventure away from home was in a 2005. I was confronted with all sorts of problems while I was away. I figured there’s a good side and a bad side to every experience, and I managed to earn enough to cover my basic needs. This year, on returning to the village to plant, I heard about the Daba Kamalen project and applied as a candidate.

(Fade up balafon music).

Salimata :

Vieux, now we know more about what motivates Mamadou Diarra. He is really determined to win first prize.

Each episode would end with a plug for the next episode as well as a reminder that listeners can interact with the program by calling in and leaving messages on Daba Question:

A typical end to each episode

Salimata Koné: In addition to the radio reality program, we are going to invite agricultural and livestock experts to give their opinions on the questions asked by you, the audience. During these programs, you will learn about the important steps to create a farming business, and find out how our candidates are progressing. Other young people are encouraged to apply the lessons learned through listening to this radio reality series. Here is the number to contact us: 21253348. You can also leave a message at the following number : 71990953

Episodes 3,4, and 5

Each of the following three episodes provided summaries of the previous episode and check-ups on each of the candidates and usually a specific focus on one or two of them. For example, episode three focused on the candidates choosing the proper inputs for their business and the proper use of these agriculture products. In this sequence the hosts talk to Minata Coulibaly (the contestant Salimata's mentor) and a local elder about challenges around the seed they had planted.

Extract from Episode 3 “You need quality seed to ensure good germination”



Photo: Host, Salimata Koné interviewing a local advisor for part of a FarmQuest episode

Vieux : Dear listeners, you are tuned to the third episode of the program Daba Kamalen on Radio Fanaka. You need quality seed to insure proper germination. Our Daba Kamalen candidates will profit from the purchase of good working instruments and tools.

Salimata (host) : Our animal breeders will also profit from good advice to improve how they feed their herd.

Vieux : Hey Sali, it's true that in farming, you can't always have instant results all at the same time. That's life, isn't it?

Salimata (host) : What do you mean, Vieux?

Veux : Sali, let's see what's happening in Wakoro.

Sound of the motorcycle taking off with a toot of the horn.

Ambient sound of birds chirping, running water.

Vieux : Hi Sali ! Your well is full.

Salimata Traoré (contestant): When it rains it overflows.

Vieux : So you used the water to help your garden?

(Sound of water filling a bucket)

Salimata Traoré (contestant): When there's not enough rain, we water from the well.

Vieux : When you first planted, there was not much rain?

Salimata Traoré (contestant): It didn't rain, so we watered the garden from the well. Now it rains, so things have improved. But the seed we got from the official supplier didn't germinate. Minata will explain in more detail.

Salimata (host) : So, Minata ?

Minata : To our surprise, seed we got in those containers didn't produce results, but the seed we had kept from our last year's garden did germinate. Aboudou Mariko can comment.

Vieux : Aboudou, should they continue to resow the rest of the seed from the containers?

Aboudou : In my opinion, we shouldn't rely on that seed, I don't believe it is good, and we can't lose any more time during the rainy season, which is of short duration.

Balafon music

The above example shows how the episodes do not shy away from failure or challenges faced by contestants. FarmQuest is about showing the regular challenges faced by farmers. This challenge of non-germinating seed eventually was resolved when the seed did finally germinate, but it highlights the way the episodes explored common challenges instead of glossing over them.

The following excerpt from episode four shows an example of a prompt for listeners to vote for their favourite candidate from this episode.

A typical prompt for use of “beep-to-vote”

Vieux Fatogoma : Dear Radio Fanaka listeners, you have just heard our candidates explain the advantages and difficulties encountered and the lessons learned in the process of carrying out their farming projects. When the series began, we put two candidates in competition each episode.

This week it is Salimata Traoré from Wakoro and Fanto Samaké from Tingolé. There is a phone number assigned to each candidate and to vote for Fanto Samaké you dial 91000084. For candidate Salimata Traoré you dial 91000086. I repeat, for Fanto Samaké, you dial 91000084 and for Salimata the number to dial is 91000086. You only have to beep either number to vote for the candidate of your choice. It costs you nothing to call us. If you have questions concerning farming, you can call 90808040. You just beep this number free of charge and a few minutes later this number calls you back to let you ask your questions *(he repeats number)*

Our agriculture experts will answer your questions on the air every Sunday evening.

Episode 6

Episode 6 was the final reality episode of the FarmQuest program and it culminated with an audience vote for their favourite “people’s choice” contestant. There was also a judgment from the national advisory committee jury of the project on the “jury’ winner” but it was deemed too difficult to choose. Instead, each contestant was praised for their efforts.

Extract from Episode 6 - Finale



Photo: Contestant Kafunè Mariko tending to her baby goats with her local mentor.

Vieux Fatogoma : Local authorities were present at this evening to honour the Daba Kamalen candidates. The village chief of Fana took the floor and thanked all who had come to the celebration.

Mayor’s representative: I speak for the council, thanks to the project for this initiative to help farmers, specifically those from the commune of Guegneka which is principally a commune of farmers. We greet the audience and thank you for coming.

Oumou Coulibaly : As director of Radio Fanaka, I would like to give thanks to this project, many thanks to all the communal authorities with whom we work hand-in-hand.

Vieux Fatogoma : No one left the evening empty-handed. Because it was impossible for the jury to pick a winner.

Salimata Koné : Our heartfelt thanks to our jury members, the director of the radio and her team, to the Daba Kamalen local commission, to Farm Radio International and the Rockefeller Foundation, without forgetting our faithful listeners and the municipal authorities and village chief of Fana, and the our candidates< partner villages.

Also thanks to the candidates and their local advisors. Our thanks to project coordinator Lamine Togola. And great thanks to Modibo G Coulibaly known as Biton, regional Director of Farm Radio International.

Vieux Fatogoma : Let's hear what the president of the jury had to say.

Jury President : Since it is getting late, we will deliver the results : it wasn't an easy task to judge young farmers who worked so hard in the field of poultry, cattle and goat farming, improved corn and peanut production, cucumbers and potatoes. If every candidate had done the same type of farming, we could have chosen a winner, but it is hard to pick one since they each practice different activities. Daba Kamalen creates employment for young farmers. Our inheritance is the land. Most of our produce comes from elsewhere, so if young people take up the challenge of farming this will stem the exodus, instead of them going to look for work in Bamako or in the gold mines or Ivory Coast. The government cannot create jobs for all these young people. The jury has decided that each candidate will receive an award for his work. We ask Gizaw, FRI coordinator from Tanzania, to say something. Before he comes onstage, we will give out the awards. Erica will present an award to Awa Doumbia from Dien.

(applause)

Abdou Berthe will give an award to Fanto Samaké from Tingole Banankabougou .

Abdoul Berthé : I am a Sissoko and proud to present you an award. Take my number. I have a special award for you.

Music.

Fanto Samaké : Abdoul has offered me 10,000 francs as a personal encouragement.

Oumou Coulibaly : When I went to Tingole I told the women to tighten their belts to that the men wouldn't beat us in the contest. I also salute your advisor who is to congratulate for her extraordinary efforts. You will be well-known, many people will talk about you in a positive light, God willing.

Vieux Fatogoma : What you've just said is the truth, Mme the Director, Kafune's goats will give birth, just as she has recently done. Her baby is with us this evening, even before we celebrate her 2nd month ceremony. (3sec)

Song for Kafunè Mariko.

4.3 Radio station log sheets

Immediately after each episode, Radio Fanaka staff would fill out a basic radio station log sheet which collected information about the content of the episode, number of interactions through mobile phones (calls-in, calls-out, beeps, messages left), number of interviews with experts/farmers, and a self-assessment of the quality of the episode and any changes that should be made for the next week's episode.

These log sheets are standard for all FRI programs and serve as a way for radio stations to record basic information, but also to take a moment and reflect on the content of the program. These logs were submitted through an Android tablet which was given to the station at the beginning of the project. Mobenzi, a mobile survey tool was used to collect these logs. All but two log sheets were submitted for each of the 12 episodes. The two missing were due to a delay in translating the system to French.

4.4 Other monitoring methods

Monthly joint monitoring visits by the production team (Radio Fanaka and FRI staff included) and members of the local advisory committee were done to examine the progress being made on the program and to understand any challenges facing the program. These visits were also used as a chance for Radio Fanaka staff to gather field interviews and wild sounds to be used in the programs. Regular reports were given to the candidate and local advisor based on these visits.

Another method of monitoring was reviewing the episodes in audio form once they have aired. Radio Fanaka would send each episode to the FRI office in Bamako via MP3 for immediate review.

5.0 Outcome Evaluation

Farm Radio International has developed a detailed methodology for measuring outcomes of radio-based interventions. A combination of both qualitative formative research featuring focus group discussions, formative research activities and quantitative survey-based randomized control trials provide in-depth evidence of the effect of the radio strategy. *See section on formative research in section 2.5*

5.1 Evaluation design

The evaluation design for FarmQuest used FRI's three community classification methodology which aims to disaggregate the effect of radio from other factors which may have influenced the population. This is preferable to a strict baseline and ex-poste survey methodology which does not include a counterfactual (ie. a group who did not receive any "treatment" in the project)

Surveyed communities are divided into three groups:

Active listening communities (ALC):

Communities where contestants lived. They were visited regularly by radio station staff and FRI staff and participated in interviews for the programs.

Passive listening communities (PLC):

Communities where the population could receive the Radio Fanaka FarmQuest broadcast but did not have any direct contact with station staff or FRI staff. They did not have contestants living in the community.

Control communities (CC):

Communities that did not receive the Radio Fanaka signal due to being out of range. They also did not interact with radio or FRI staff.

A detailed survey was conducted in each of these types of communities in order to gain and understanding of the difference in knowledge gain, attitudinal change and practice differences between them.

5.2 Sample size and breakdown of respondents

A total of 369 surveys were completed for the outcome evaluation. Approximately half of the respondents were women. *See Figure 3.*

The survey was conducted in a total of 6 communities which were broken down on the next page.

Table 4: List of participating communities in outcome evaluation survey

Community name	Community type	Included a FarmQuest candidate in population?
Wakoro	Active listening community	Yes
Dien	Active listening community	Yes
Sanankoroba	Passive listening community	No
Dialakoroba	Passive listening community	No
Kantola/Kobili	Control community	No
Yolla	Control community	No

All communities were comparable in terms of the extent to which they were reached by extension staff and received other support (ie. access to business development services, access to inputs). The quality and type of extension in these areas was also roughly the same.

Number and breakdown of respondents:

The following was the blueprint for randomly selecting participants for the survey. In reality we came very close to achieving this breakdown.

Table 5: Breakdown of survey respondents by community type, sex and age group

Type of community	Number of Males (adult)	Number of Females (adult)	Number of Males (youth)	Number of Females (youth)	Number of communities	Planned Total	Total in actual survey
Active	15	15	15	15	2	120	124
Passive	15	15	15	15	2	120	119
Control	15	15	15	15	2	120	124
Total	45 x 2 = 90	45 x 2 = 90	45 x 2 = 90	45 x 2 = 90	6	360	367

Process/protocol for random selection of respondents:

The following was the process followed to select the actual respondents in the survey and was used as guidelines by the project enumerators in the field.

For adults:

Interview the head of household who is between 31-50 years of age. 50% of these should be female.

For youth:

Interview a youth between 15-30 years of age randomly selected from a household. 50% of these youth should be female. Each youth should be part of a different household.

- In each selected community get separate lists of women and men household heads (usually from the local leadership by the help of an extension worker).
 - Also make a note of which households have youth as residents
- Working on one list at a time, pick 40 names of adults by choosing a starting point, say the 3rd name on the list as a starting point, then select each 4th name until 30 names are selected. Each of the names is

written on a separate piece of paper and folded. The papers are put on a hat or paper bag and mixed up. One paper is taken out of the hat or paper bag at random and each time the papers are mixed up before the next pick, until 30 of them have been selected. The names in each piece of paper are recorded as respondents (with 5 extra for replacement, in case some miss the interviews)

- Do the same for a list of 30 youth in the community (of which 50% should be female)
- The same approach is used for each community

Table 6: An example of the selection from a list in a community:

Rose	
Fatuma	
Suzie	Starting point
Maggie	
Tunu	
Kingo	X (selected)
Kash	
Migu	
Koku	X
Katarina	
Anna	
Faraja	X
Tunu	
Waridi	

Sample size validity

Sample size was calculated using a 95% confidence level and +/- 5% error. A population of 100,000+ was used as the target population.⁶

5.3 Mobile phone collection system

Survey enumerators were fully staffed by Farm Radio International and Radio Fanaka in order to save on survey costs and to have enumerators that were familiar with the aims and methodology of the project.

FRI used a mobile phone survey collection system called Mobenzi (formerly Mobile Researcher) which FRI has used since 2011 on the collection of all project surveys.⁷

This system enabled the enumerators to load up a pre-formatted digital survey on Nokia E-5 feature phones with simple navigation and a QWERTY keypad. The system allowed for real-time oversight of the survey by the FarmQuest project coordinator in Canada. This was important since any glitches or

⁶ Krejcie, R. and Morgan, D. "Determining Sample Size for Research Activities." Educational and Psychological Measurement, vol 30: 607-610. 1970.

⁷ Farm Radio International. "Monitoring with Mobiles" <http://www.farmradio.org/ourblog/2011/02/07/monitoring-with-mobiles-using-mobile-phones-as-a-convenient-and-cost-effective-survey-tool/>

anomalies with individual surveys could be caught early and quickly corrected centrally. For example, if one particular enumerator is completing surveys at a much faster rate than the others, this can be remedied.

The mobile survey system also offered the benefits of avoiding any errors due to: lost physical surveys, destroyed physical surveys, and transcription errors. Lastly, collecting surveys on mobiles enabled a level of validation through the collection of both GPS coordinates for each interview as well as a photo of each respondent.

5.4 Evaluation timeline

The outcome evaluation survey was designed in January 2014 with feedback from both FRI staff and Radio Fanaka staff who were involved in the production of the program. The field work for the survey was completed over the span of one week from February 9-15, 2014.

6.0 Findings

The final outcome evaluation of FarmQuest was completed in February 2014 and consisted of two main types of measurement. The first was a series of key informant interviews with major stakeholders in the project which included individuals such as local elders, government officials and agricultural service providers. The analysis of this information will be looked at in the next section of this report.

The other major outcome evaluation activity was the household survey completed in late February 2014. This section will analyze the findings from this survey activity based on the following:

a) Demographic radio listening habits and level of listenership to FarmQuest

This will include levels of use of mobile technologies as well as general listening habits.

b) Level of knowledge of the practices featured in the FarmQuest program

This is based on a ten question knowledge quiz which was designed in conjunction with radio station staff which features true and false questions as well as multiple choice questions. Each question had a correct answer and related directly to the main content that was featured during FarmQuest.

c) Attitudes towards agriculture in the survey region

Four questions in the survey featured Likert style questions around attitudes towards various aspects of farming and its place in modern Malian society.

d) Changes in agricultural practices and intentions to practice

While a one year project with only six episodes is not enough to expect large-scale changes in practice, intentions to practice can be useful indicators for measuring the level of trust and satisfaction audiences had with the program and its main recommendations in terms of agricultural practices.

Since FarmQuest is at its core a program aimed at youth, each section is disaggregated by age (Adult: 31 and VS Youth: 15-30). Where relevant, the results were sex disaggregated to show differences between male and female respondents.

6.1 The importance of passive listening communities

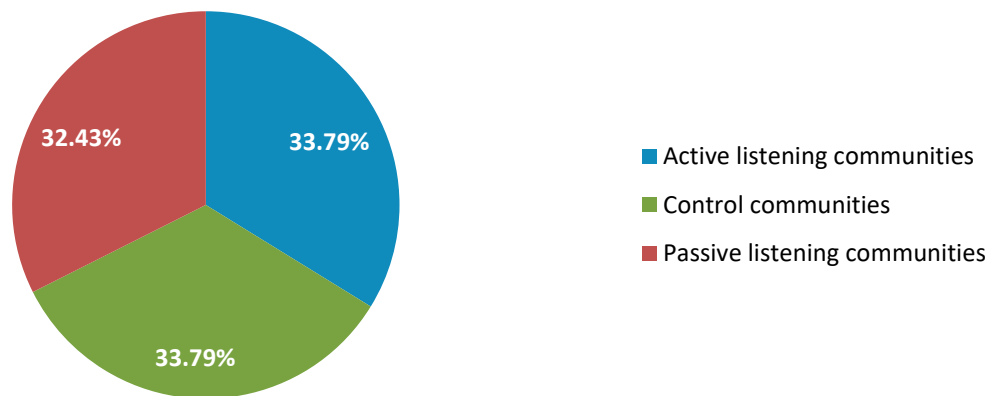
Where relevant, the breakdown between three types of communities: Active listening communities, passive listening communities, and control communities is presented. It is worth noting that FRI pays particular close attention to the differences between passive and control communities. This is because passive communities represent thousands, if not tens of thousands of people who may have heard the FarmQuest programming. They were not involved directly with any of the field based activities in the program and can therefore be seen as a group that is vast, relying on the radio program in a more natural way than in the active listening communities. By comparing the passive group with the control we hope to gain an understanding of the role of radio alone in shaping attitudes, knowledge and practice among listeners.

6.2 Breakdown of respondents

Type of community

The survey was designed to interview equal numbers of respondents in each type of community. The breakdown of respondents is roughly 33% in each type.

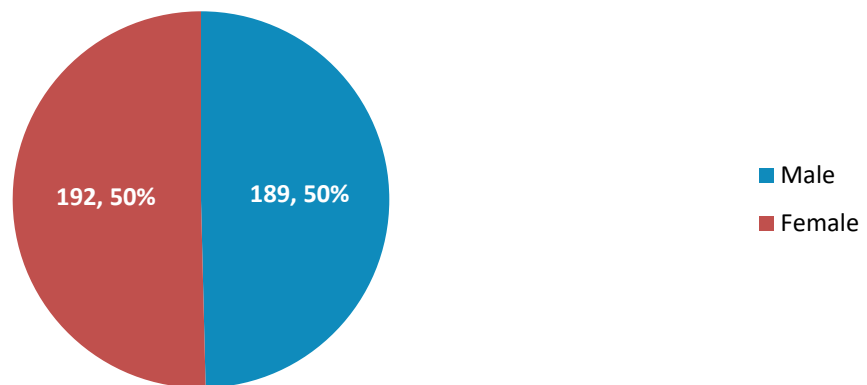
Figure 2: Total breakdown of respondents by community type



Sex-disaggregation

In the survey we were able to achieve 50% male and 50% female respondents. This was important in order to gain any understanding of the differing contexts for both groups in Fana.

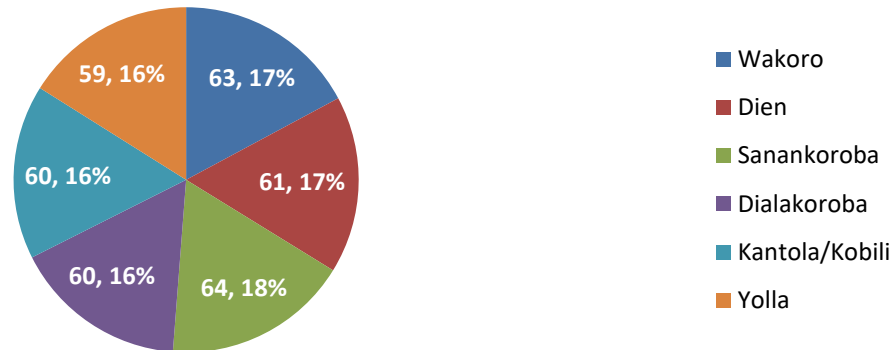
Figure 3: Respondents by sex



Number of respondents by community

In each of the six surveyed communities FRI aimed to survey 60 people in each. We achieved very close to this goal in reality. However, it can sometimes be difficult to find enough people to interview in a community setting, hence the community of Dien having only 59 responses.

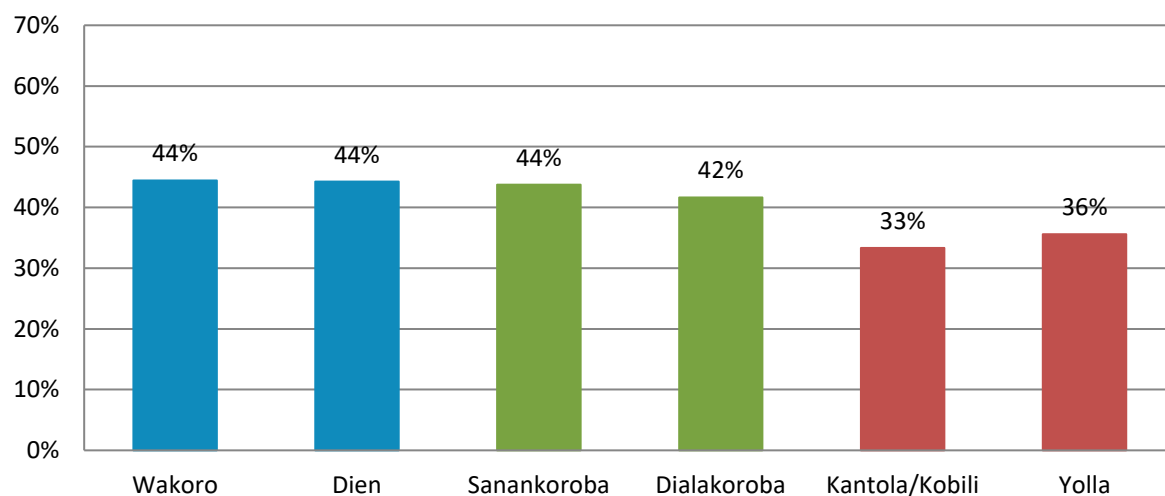
**Figure 4: Respondents by community
(count, percentage)**



Age of respondents

FRI was able to interview almost 50% youth in the survey. The aim was to have a full split between adult and youth. Finding youth to interview in communities can be a challenge due to the fact that they are often traveling or absent from the community.

Figure 5: Percent of respondents that are youth in each of eight communities

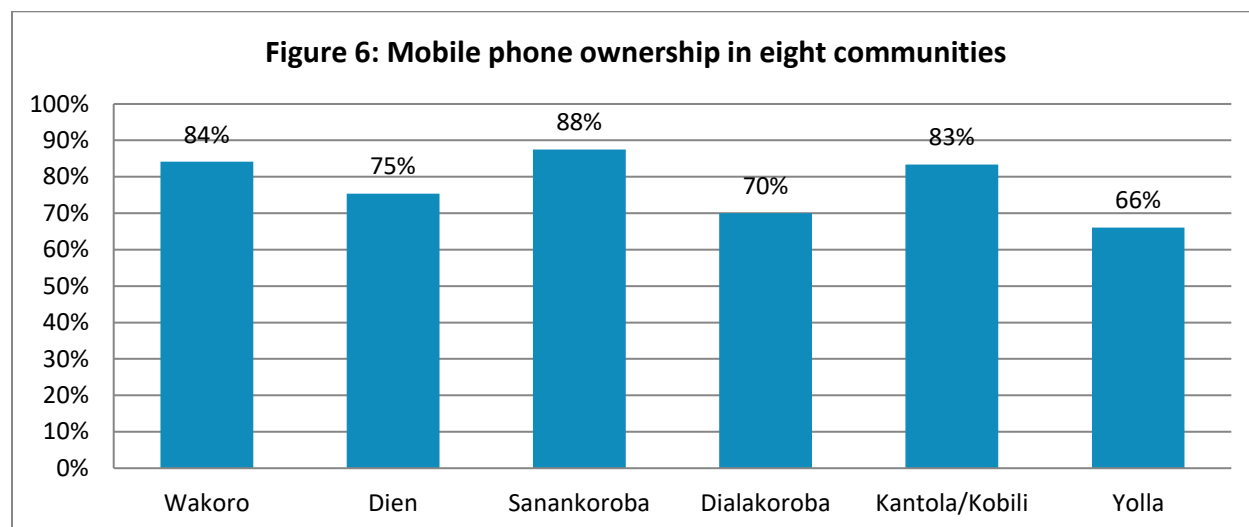


6.3 Technology ownership and access

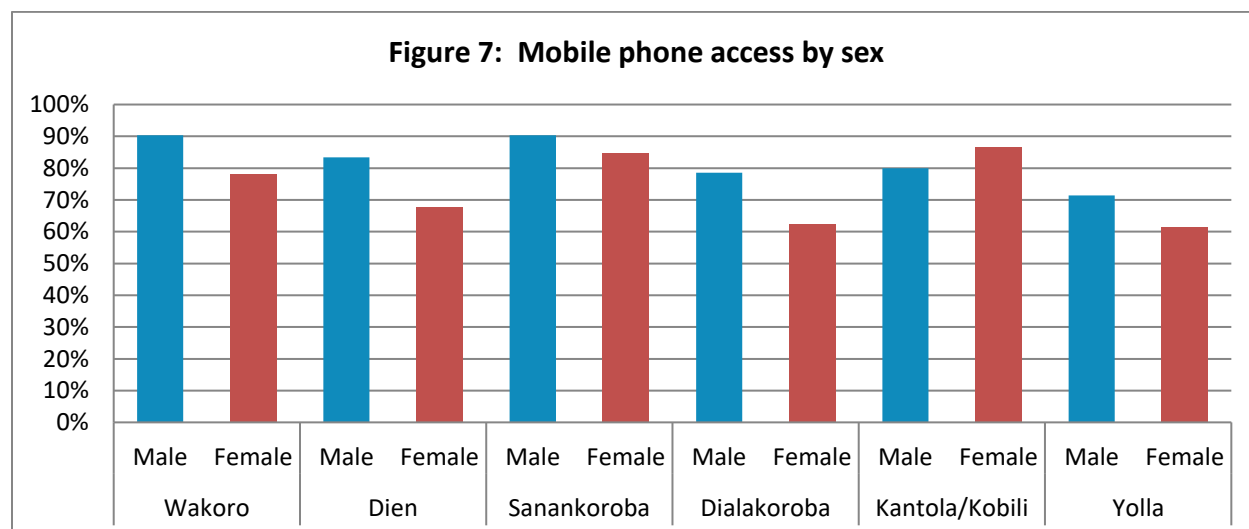
Mobile phones

Due to the strong information and communication technology focus of FarmQuest (call-in, call-outs, mobile voting etc.) measuring mobile phone ownership was a very important consideration of the outcome evaluation.

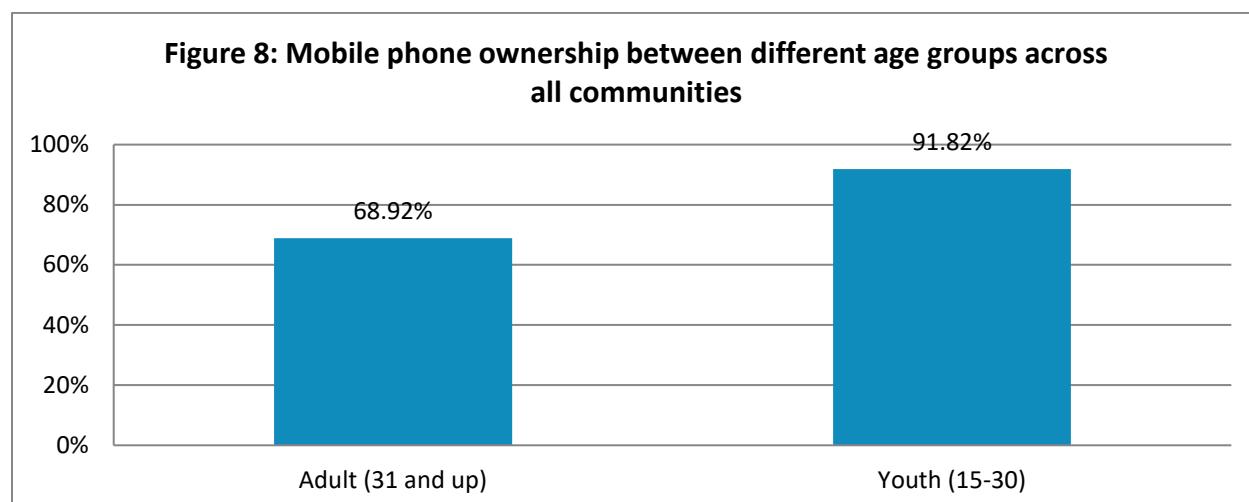
The level of mobile phone ownership was very high in each of the surveyed communities, ranging from 66% in Yolla to 88% in Sanankoroba.



If mobile phone ownership is disaggregated by sex, a surprising level of female mobile phone ownership is revealed, particularly in Kantola/Kobili where women actually outnumbered men in mobile phone ownership.



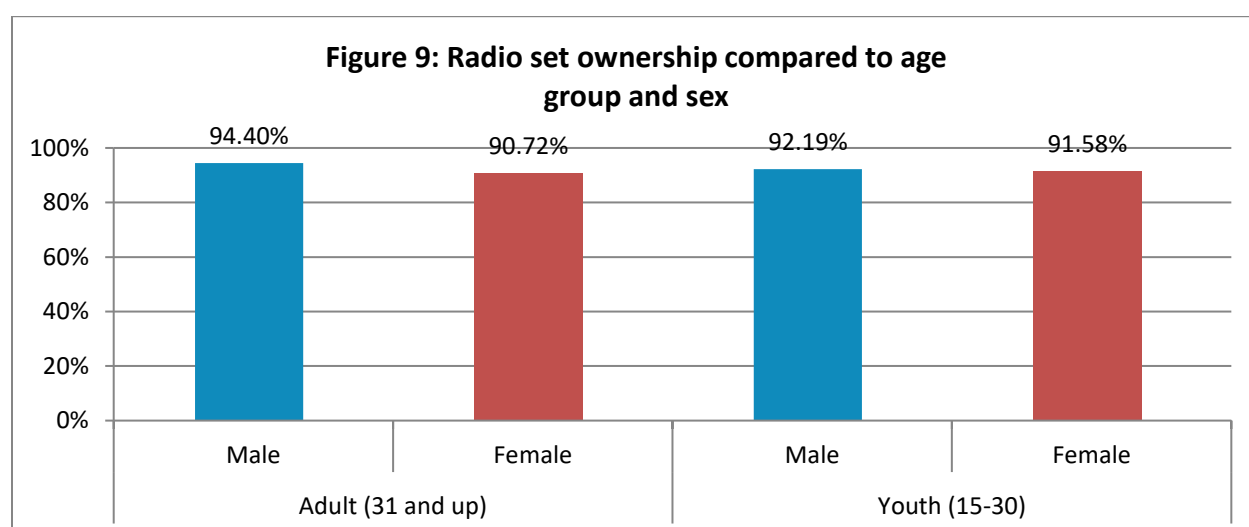
If mobile phone ownership is broken down by age group, a trend is clear where youth outnumber adults in mobile phone ownership. This is a very encouraging trend since it clearly indicates an opportunity to reach more youth with innovative and interactive program such as FarmQuest which leverage modern technologies such as mobile phones.



Radio sets

In order to expect large numbers of listeners of a given radio program it is obvious that there must be a relatively high level of ownership or access to radio sets. Due to previous FRI projects in the region we knew that this level would be high but the results ended up being even more encouraging than previously thought. For both adults and youth over 90% of respondents indicated that they owned a radio set. The proliferation of radio sets in Mali is vast, as is becoming even greater due to the easy availability of mobile phones which feature FM receivers. This tends to be the way many youth receive radio broadcasts (on the mobile phone).

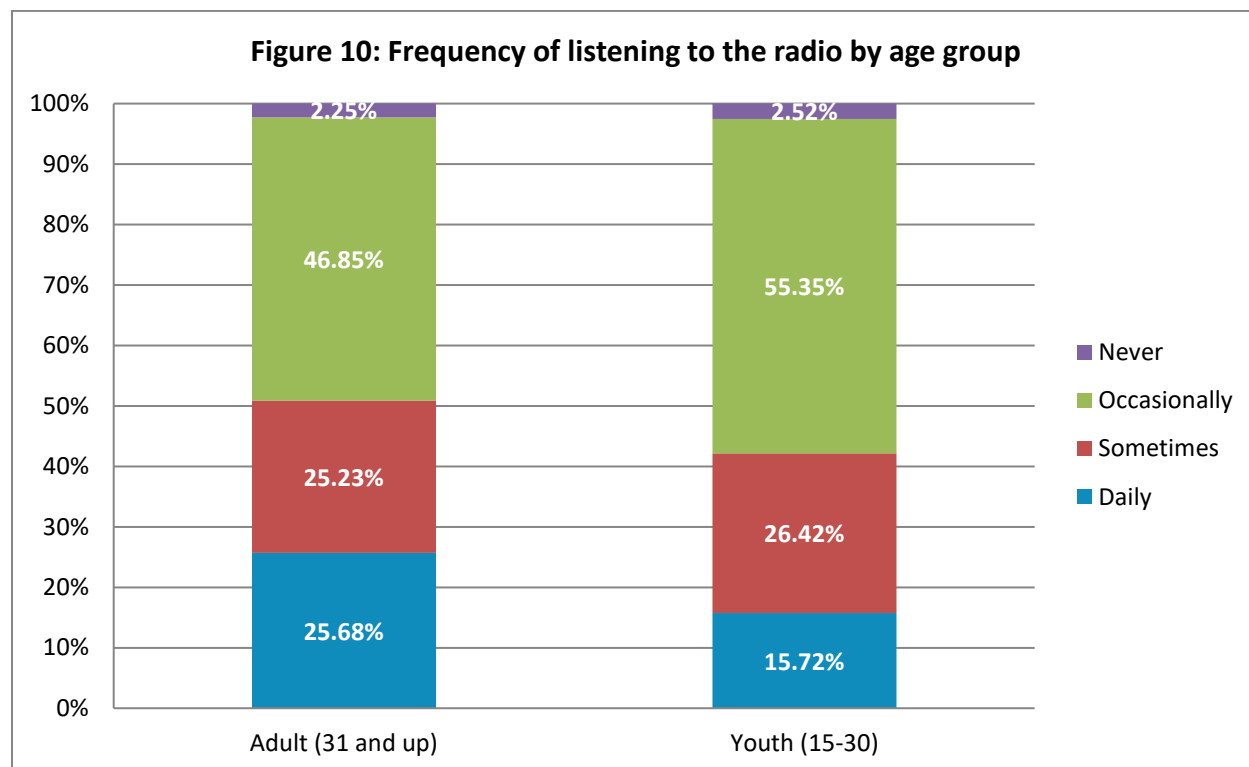
There is also no identifiable difference between ownership between sexes.



6.4 Radio listening habits

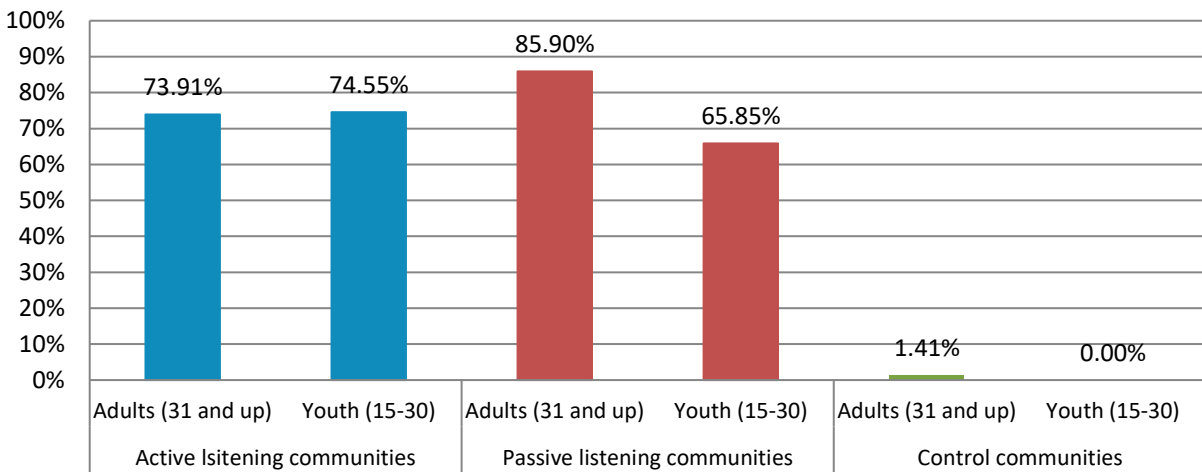
For this evaluation FRI wanted to understand the general listening habits of respondents but also their specific awareness and listenership to FarmQuest specifically.

The results for frequency of listening to the radio generally were very positive. It clearly showed that very few respondents never listened to the radio and in fact 51% of adults and 42% of youth listen to the radio at least sometimes or daily, with large proportions of respondents indicating listening occasionally.



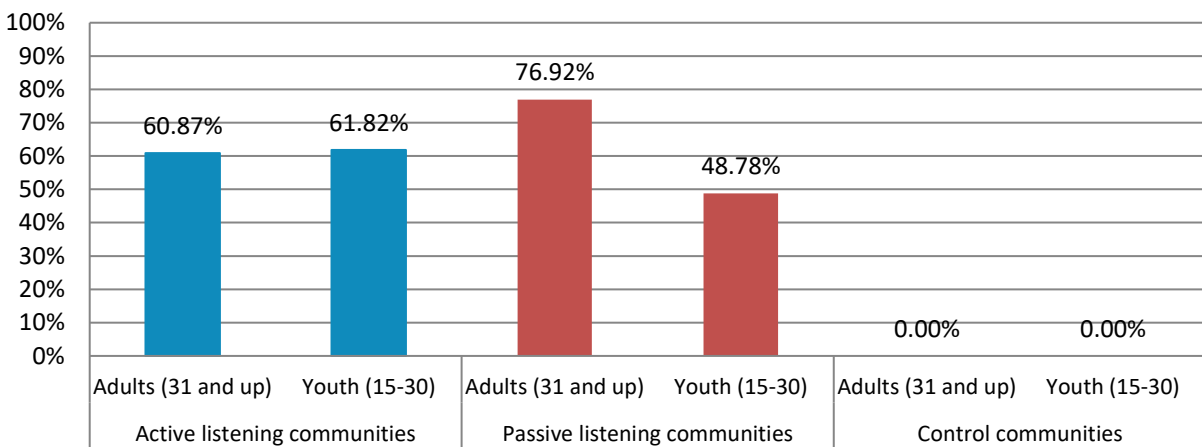
The percentage of respondents that had awareness of the FarmQuest program on Radio Fanaka was also encouraging. It is particularly interesting to see such a large proportion of respondents in the passive communities that had heard of FarmQuest. As anticipated the control communities displayed little to no awareness of the program due to the fact that they did not receive the Radio Fanaka signal. The small number of adults in control communities who claimed to have heard of the program could have feasibly heard of it during travel or from family members and friends.

Figure 11: Percentage of respondents that remember hearing about the FarmQuest program



One of the most important factors in determining a radio program's effectiveness is obviously listenership. In the inception of the project FRI knew that Radio Fanaka was a popular station in the region. Furthermore, there was a several month lead up to the program where radio spots and advertisements for FarmQuest were played during other Radio Fanaka programming. Once again, the large percentage of respondents that heard FarmQuest in passive listening communities is exciting. This means that there were listeners outside of the "test" group in active listening communities. This group who heard the program is likely in the tens of thousands.

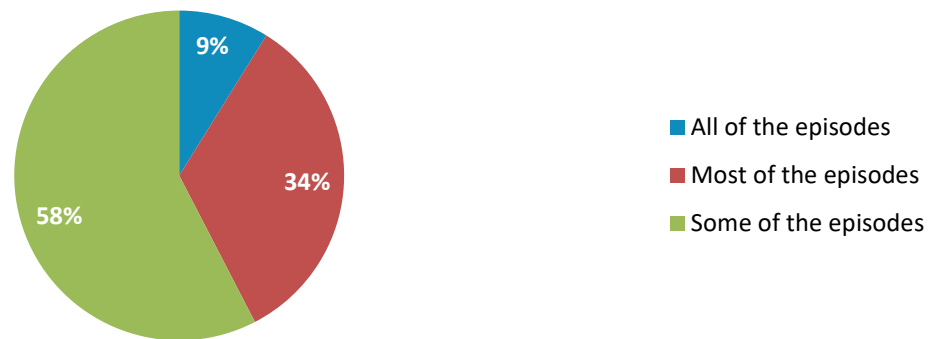
Figure 12: Percentage of respondents that heard the FarmQuest program on the radio



In order to understand the level of listenership to FarmQuest, the evaluation survey asked how many of the episodes respondents listened to. Of the respondents that listened, the breakdown was 58% some of the episodes, 34% most of the episodes, 9% all of the episodes. We used these general terms because

it is often very difficult to pinpoint an exact number of episodes listened to, but respondents can generally recall these three options.

Figure 13: Number of episodes listened to by those respondents that listened to FarmQuest (active and passive communities)

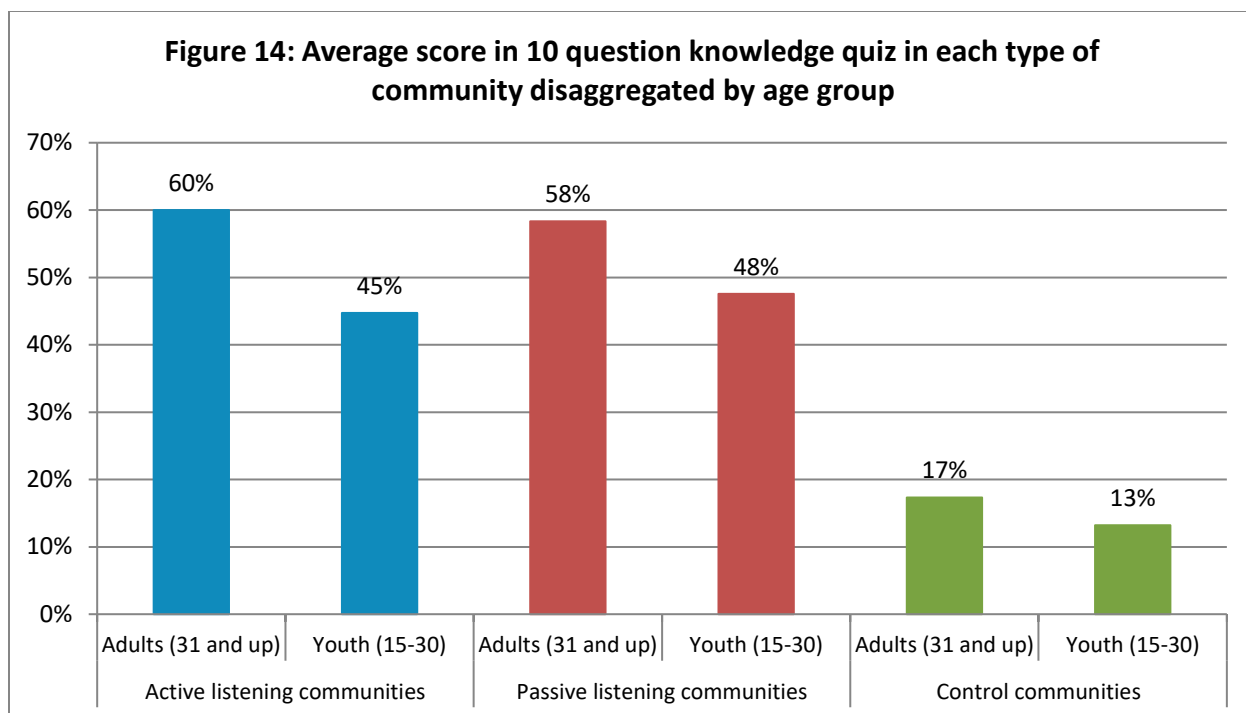


6.5 Impact of FarmQuest on knowledge

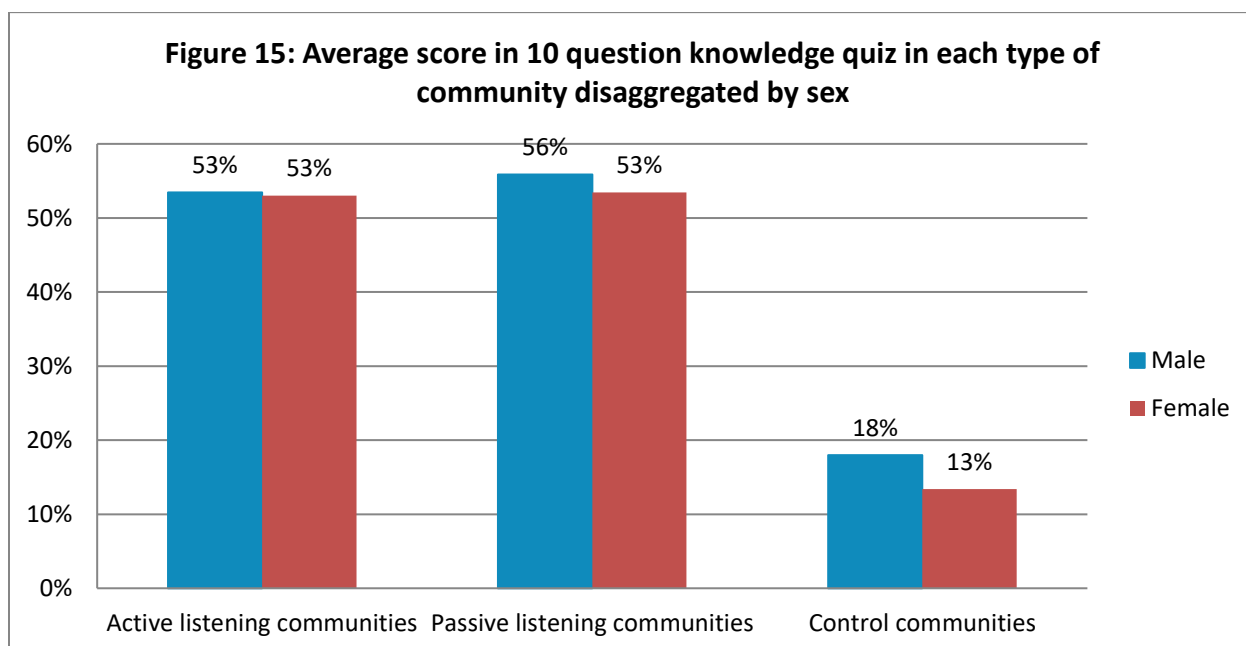
FarmQuest was at its core a program which aimed to show farming as a viable business for youth. During the broadcasts there was a great deal of information about the various agricultural projects of the contestants broadcast which featured experts and fellow farmers. Previous FRI projects have shown the importance of knowledge gain in the process of forming opinions around agricultural practices and subsequently changing long held prejudices and giving the right tools to make educated decisions on changing agricultural practices in the field.

Ten questions were devised to measure levels of knowledge gain from the program. Each is specific enough to be difficult to guess and each respondent was reminded that there was nothing to gain from guessing answers.

The average score on this knowledge quiz in each type of community was very interesting. Once again, passive listening communities were comparable to the scores in the active listening communities. This is a very significant finding. This means that regular physical on-field or in-studio interaction with the station is not necessary in order to gain knowledge from the program. Youth scored slightly lower in each community type which may be reflective of the lower listening frequency by this age group.

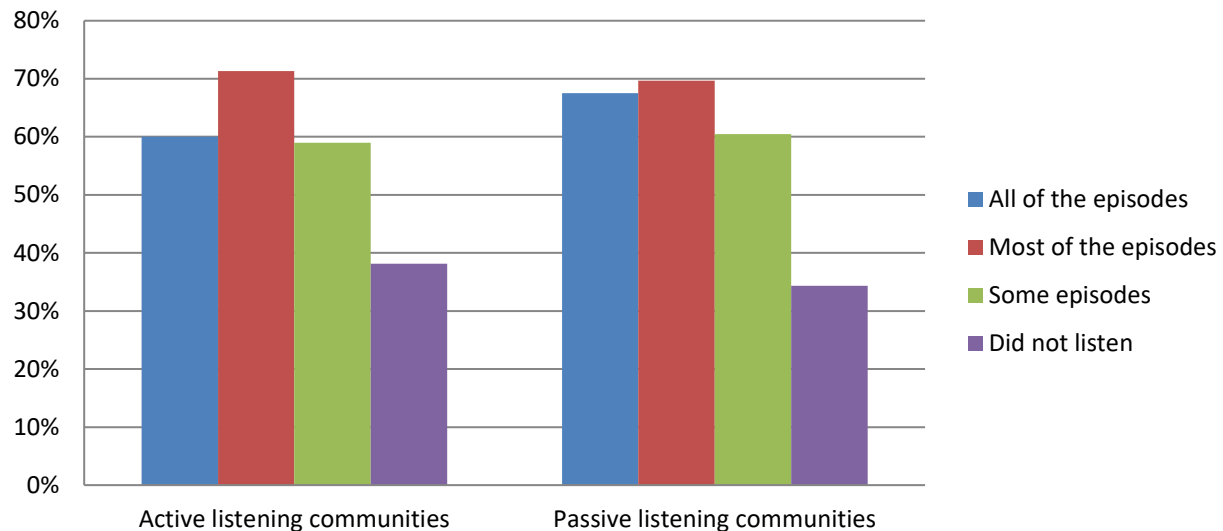


When disaggregating by sex, the scores also do not differ significantly.



We wanted to see whether listening to more episodes leads to a better knowledge gain from the program. This was indeed the case. In the following chart there is a fairly clear correlation between number of episodes listened to and average quiz score.

Figure 16: Average knowlesge quiz score VS number of FarmQuest episodes listened to

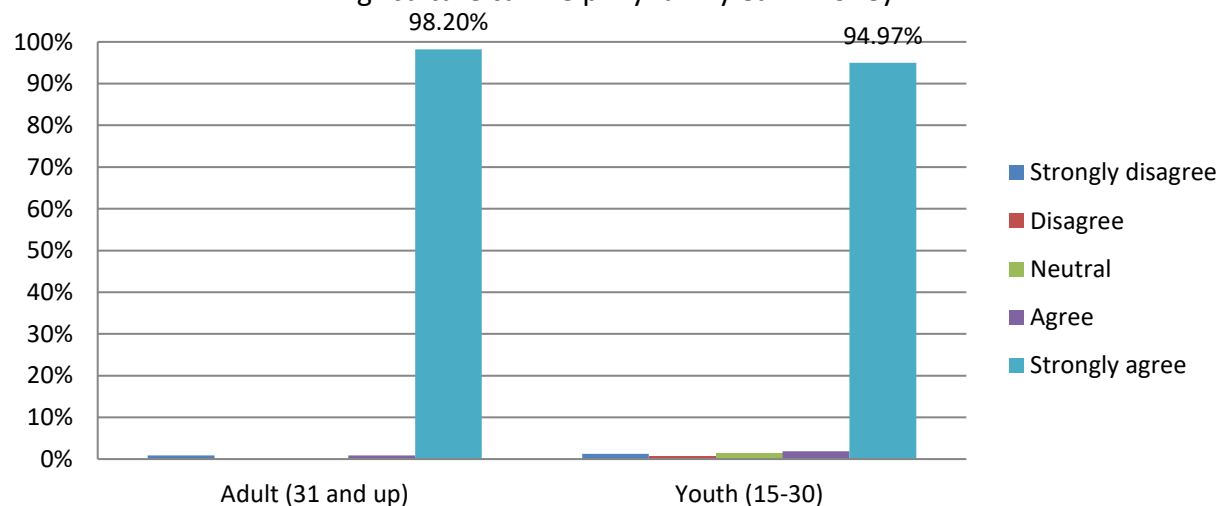


6.6 Impact of FarmQuest on attitudes

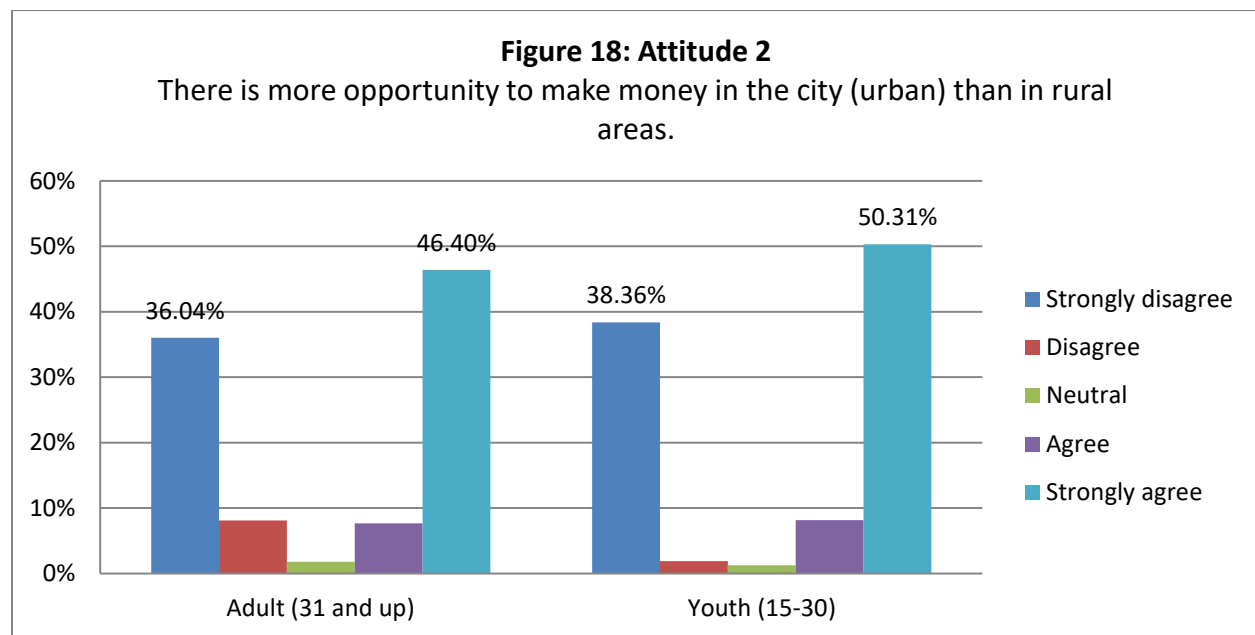
The attitudes of respondents were measured by several questions in the evaluation.

The first question clearly shows the importance of farming for both youth and adults in the surveyed communities.

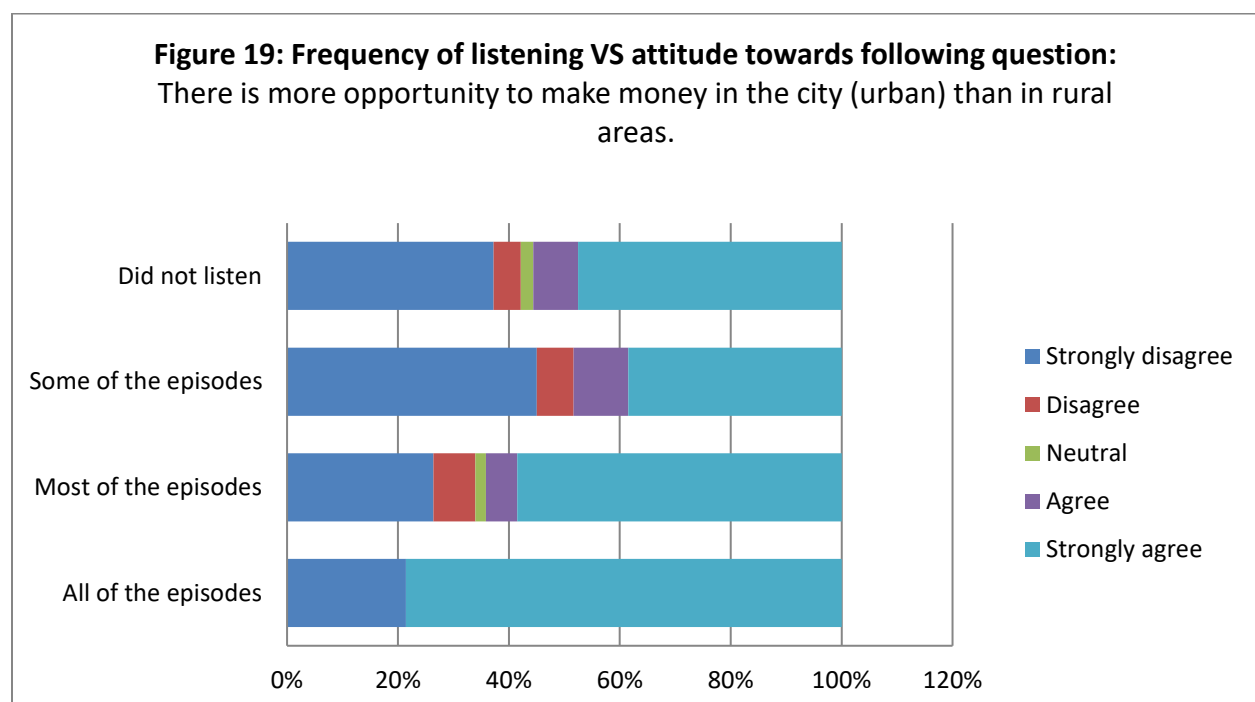
Figure 17: Attitude 1
Agriculture can help my family earn money.



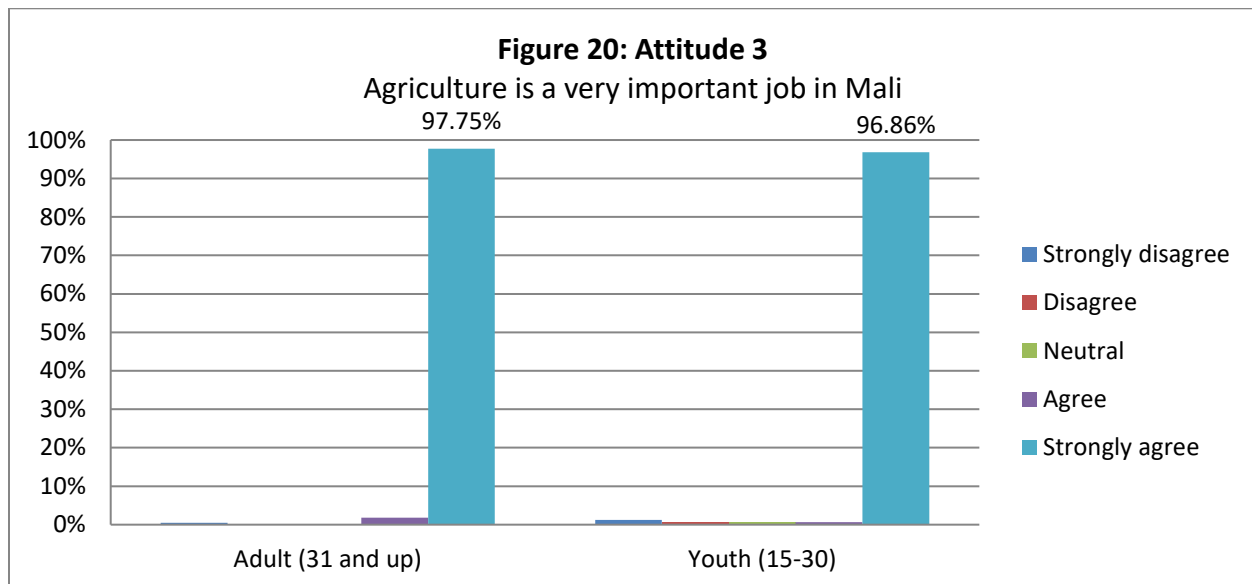
The second attitude question was an important one which probed respondents' attitudes around the idea that there is more opportunity to make money in the city than in rural areas. Clearly the results show that the prevalent view is still that there is more opportunity in the urban areas (cities).



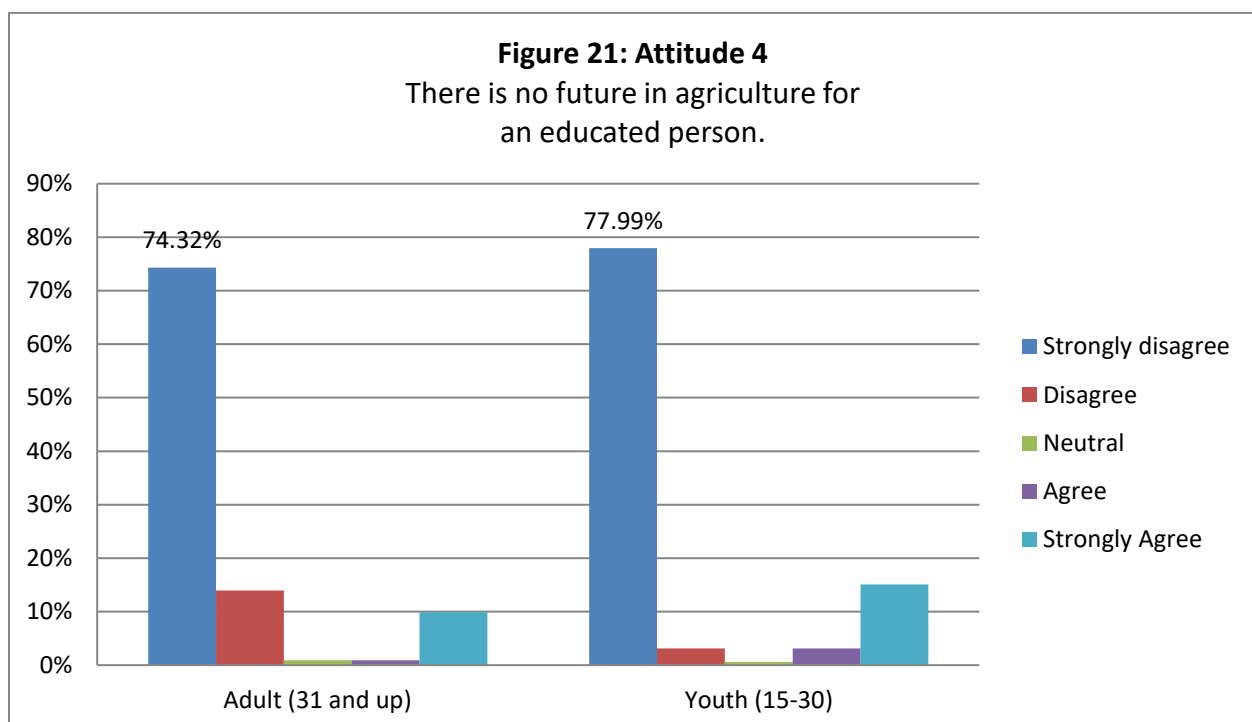
Further analysis on this question shows a fairly muddy conclusion as well. When comparing the attitudes of respondents who listened to varying numbers of episodes of FarmQuest, the result is somewhat similar.



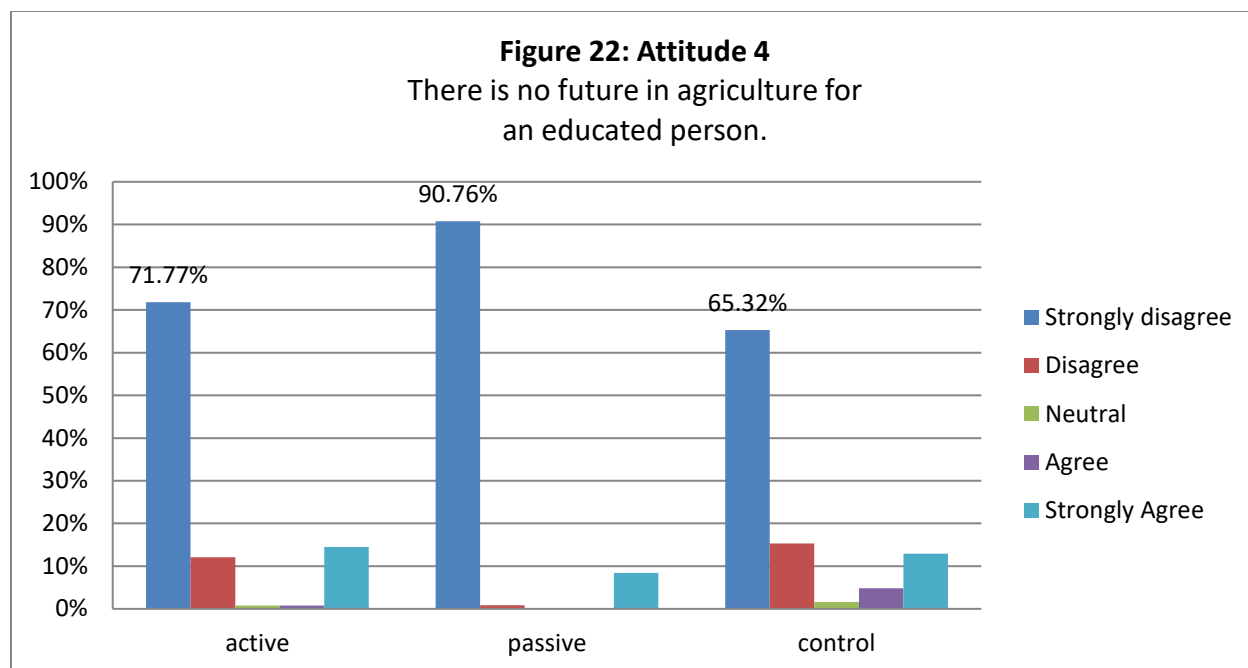
The third attitude question shows a similar result to number one, in that respondents see farming as an important job in Mali.



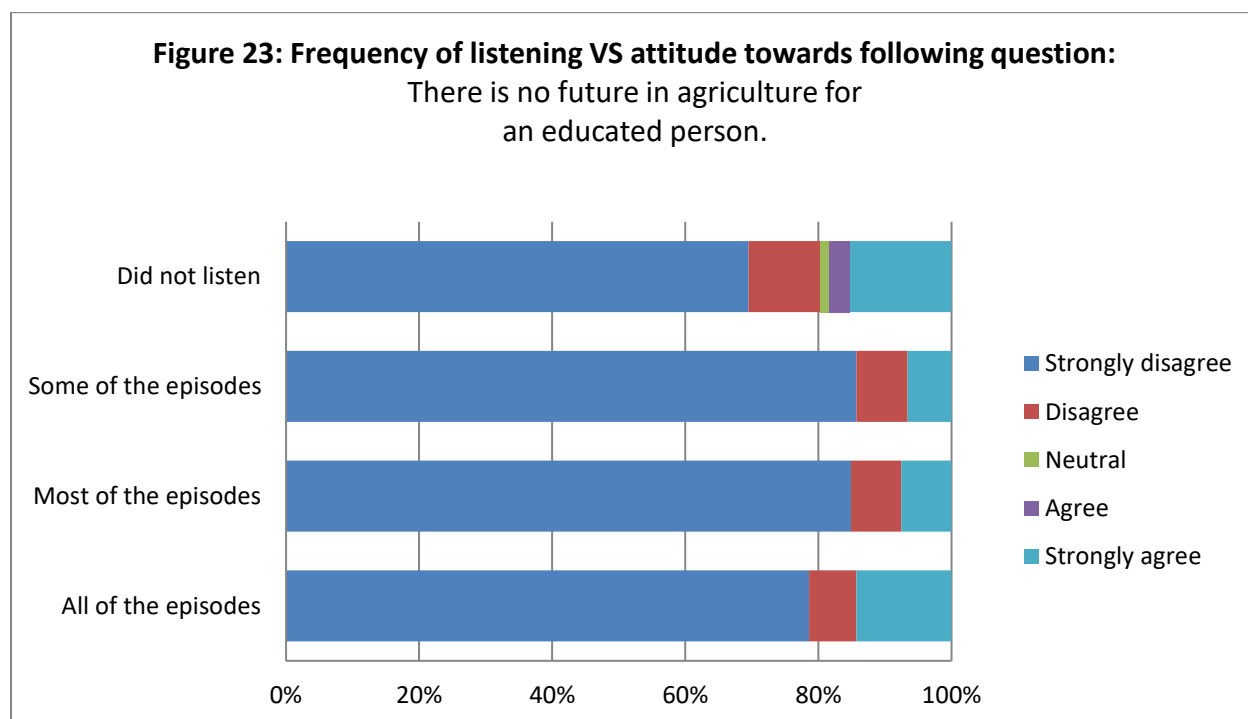
Attitude question number four shows a positive view of farming, showing that most respondents see it as something that has a future for educated people.



Looking closer at this question, it reveals that there are slight differences between community types, with control communities having a more negative view of farming.



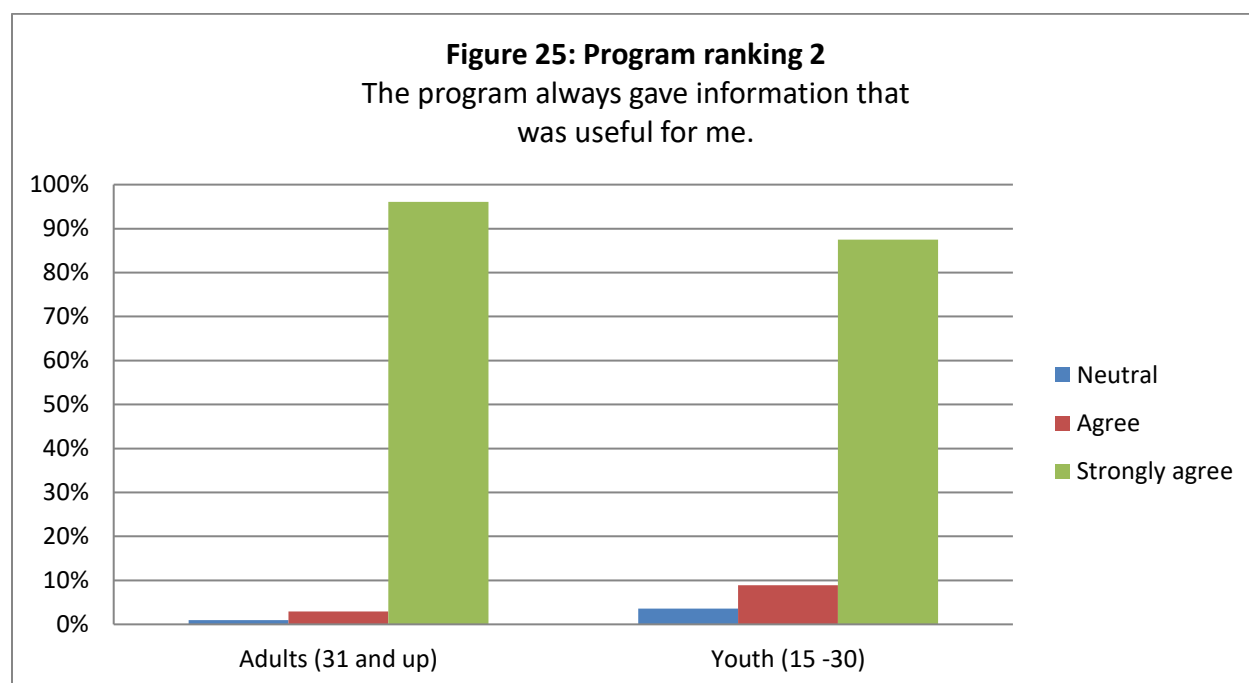
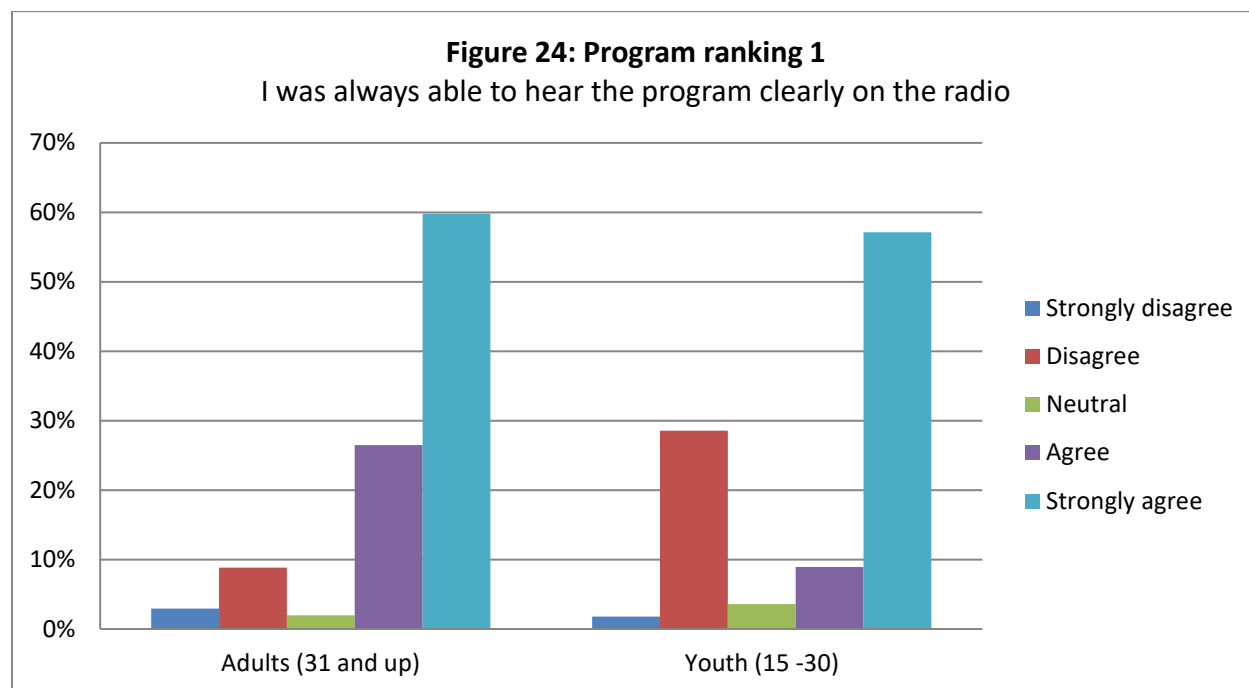
There is little difference in responses even if you take into account number of episodes listened to.

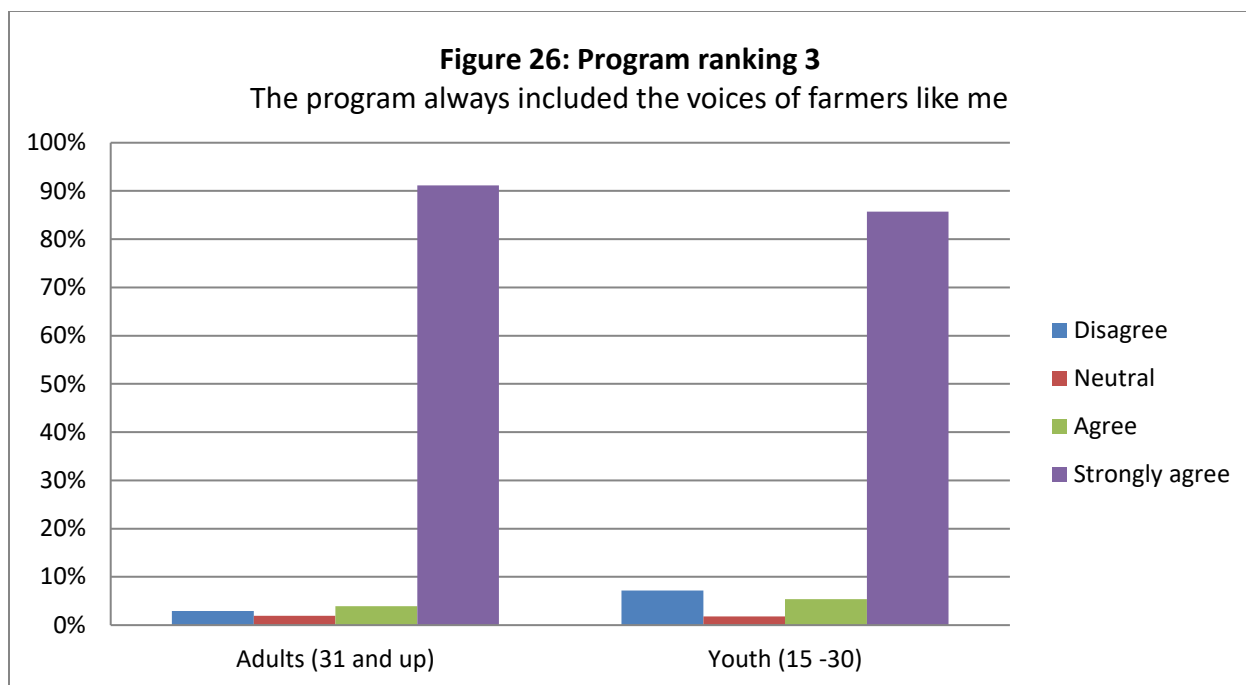


In all, the attitude question results did not show a major difference between attitudes in control communities and in listening communities (ALC and PLC). This may indicate that attitudes in Mali tend to be strongly held and are not easy to change, especially given the relatively short FarmQuest program.

6.7 Ranking the FarmQuest program

Ten questions were asked to gain an understanding of listeners' ranking or score of the FarmQuest series. In all, the results confirm that audiences responded well to the structure and approach of the program.





Question number four shows some differences of opinion towards whether listeners were given the opportunity to ask questions or make comments on the radio. Youth seem to have had more opportunity which may point to the fact that they are more tech savvy with mobile phones and may have seen more opportunity to interact with the program through this means.

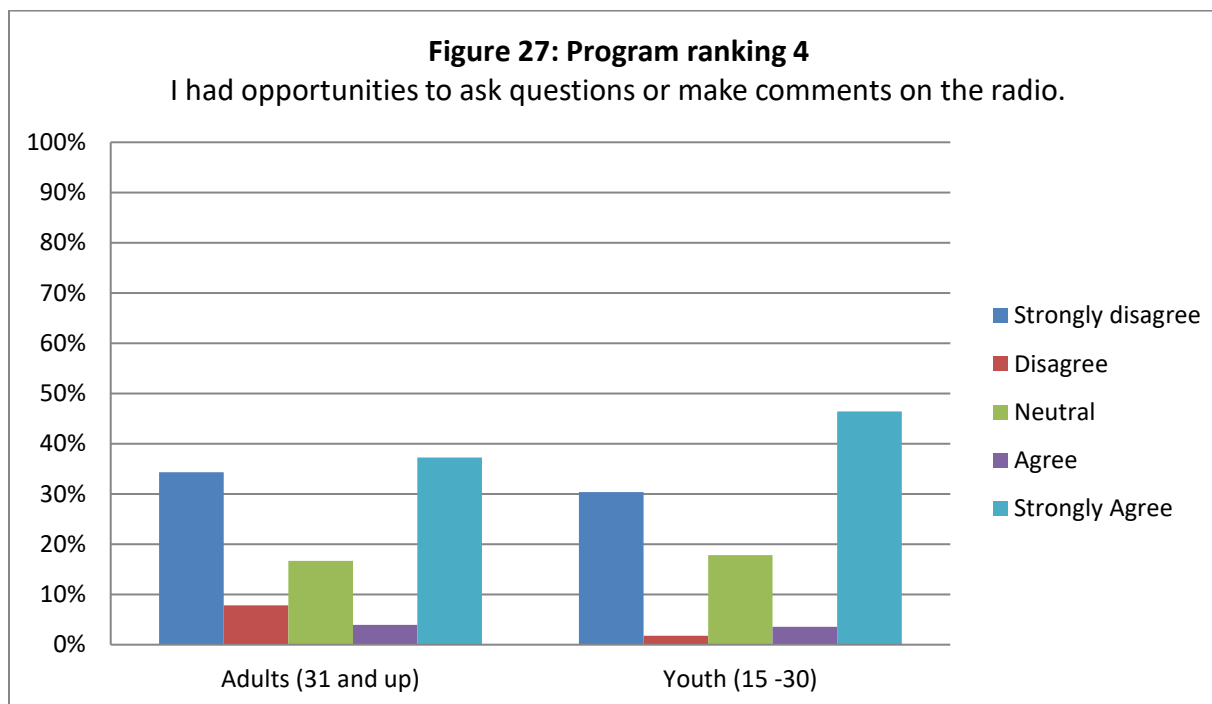


Figure 28: Program ranking 5
I found the program very interesting

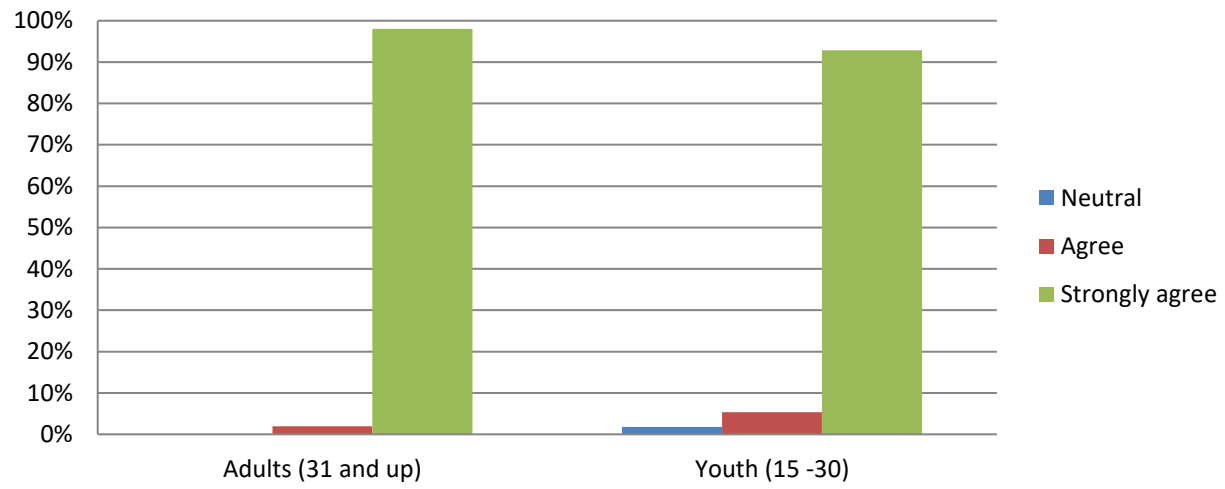


Figure 29: Program ranking 6
The program made me proud to be a farmer

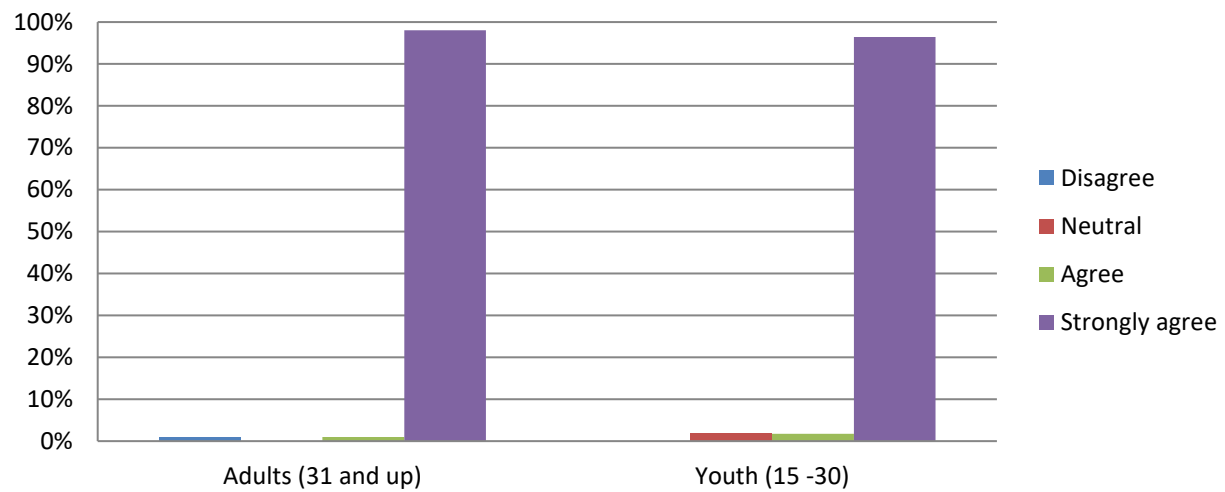


Figure 30: Program ranking 7
I have confidence that the program was telling the truth

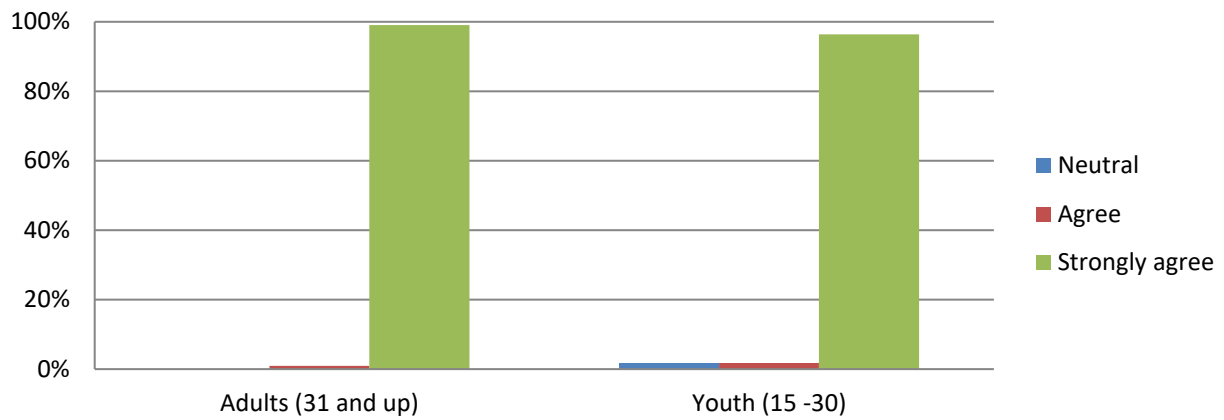


Figure 31: Program ranking 8
I liked the reality radio format

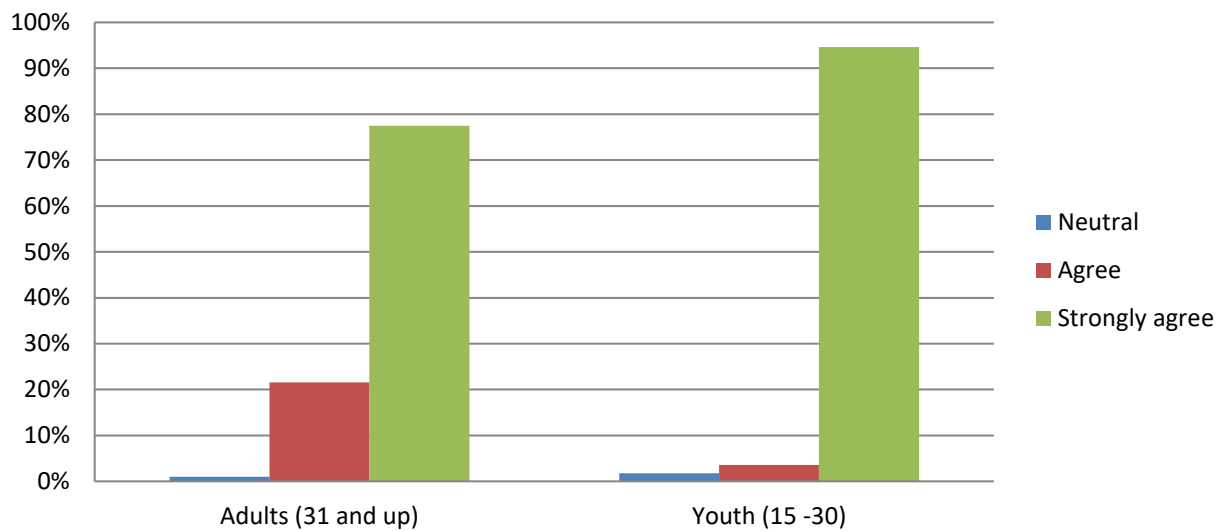


Figure 32: Program ranking 9
I liked the hosts of the show
(Fatagoma Sanogo and Salimata Koné)

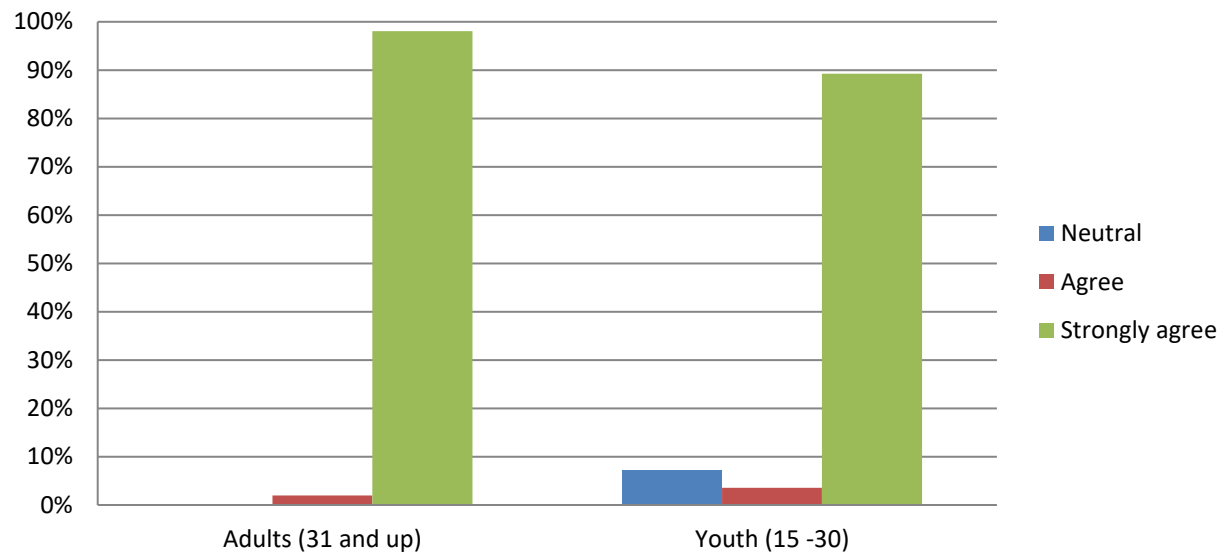
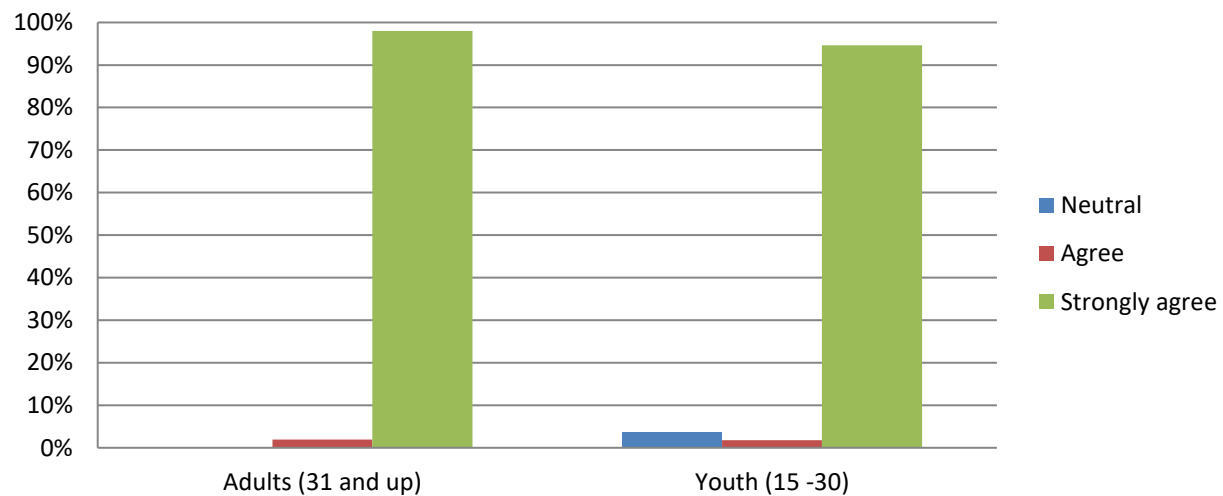


Figure 33: Program ranking 10
I would like to hear a program similar to Daba Kamalen (FarmQuest) in the future.

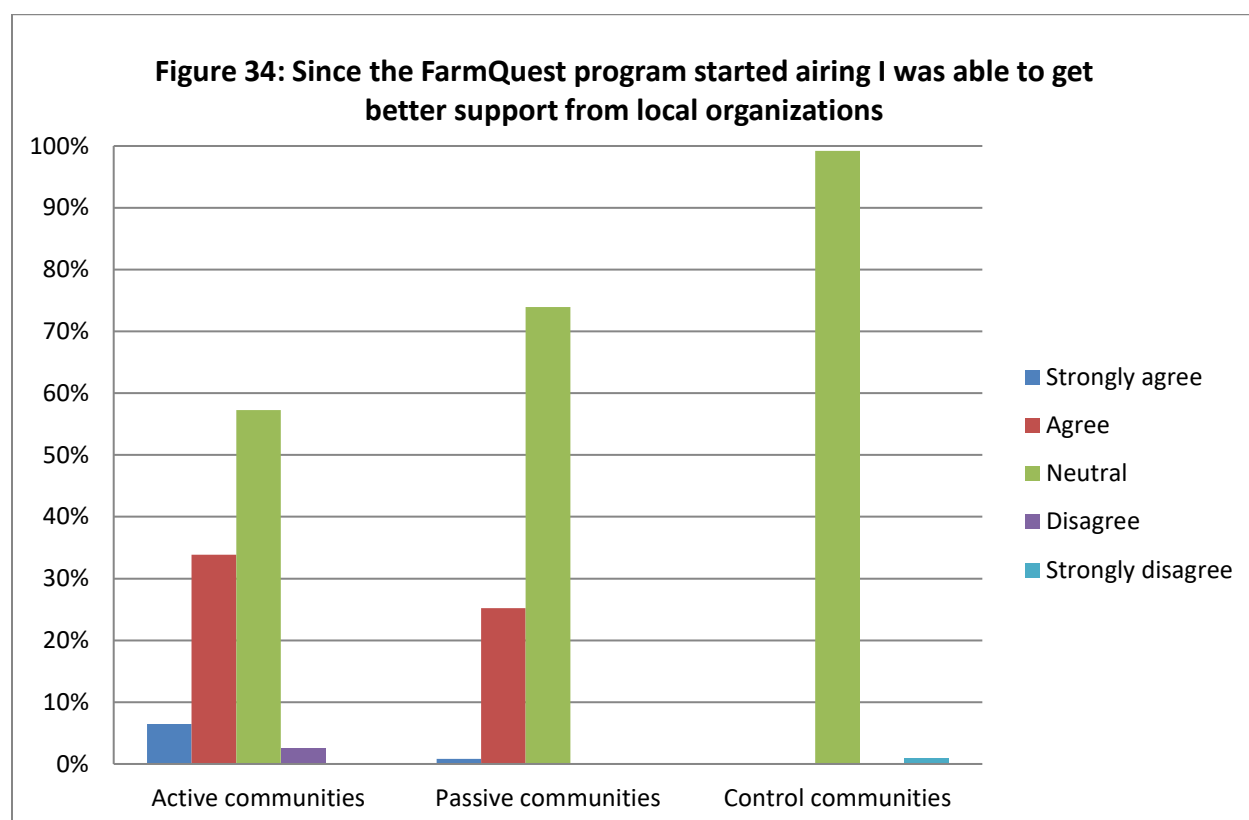


The ranking of the program by respondents shows that the program structure was seen as very positive by listeners. Not only this, but listeners tended to trust what was being broadcast. Trust is an important aspect to radio programming which aims to have a marked effect on people's attitudes, knowledge and practice. Lastly, respondents indicated that they would like to hear programming similar to FarmQuest in the future.

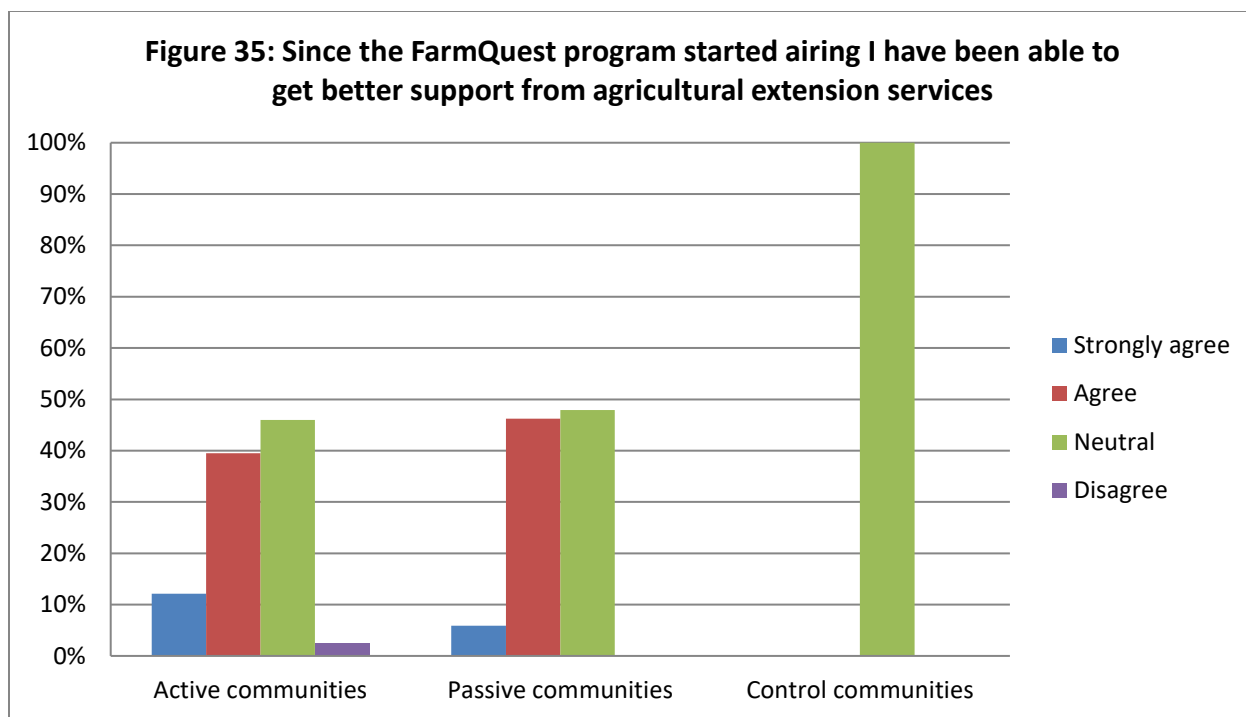
6.8 Changes seen since FarmQuest aired

An important part of the FarmQuest project was galvanizing support from various services providers in the region in order to improve coordination between agricultural extension, business development organizations and private agricultural organizations (including NGOs).

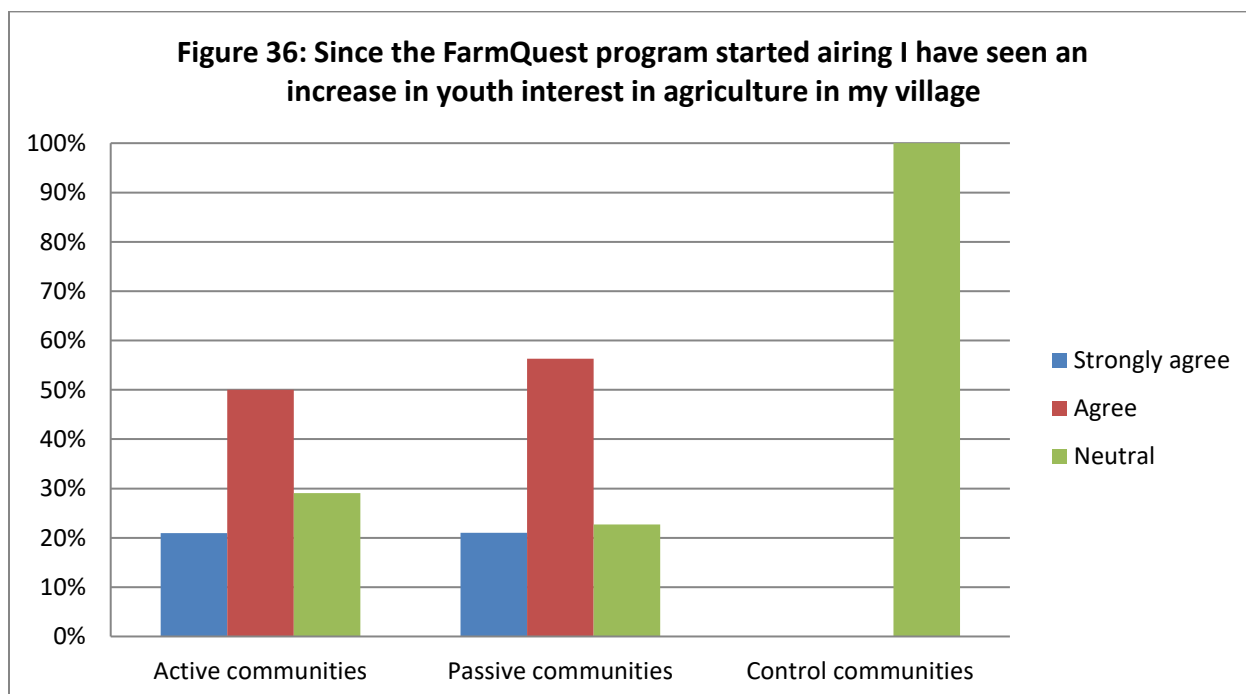
Farmers in active and passive listening communities clearly have seen some positive change in level of support from local agricultural organizations. These would include banks, seed suppliers and other local agro-suppliers.



There was an even more dramatic opinion on changes to extension support. This is a very positive sign since agricultural extension in the region are a necessity to providing further support to communities that may learn about farming practices through the radio. Often on-farm demonstrations are necessary for some of the more complicated or more involved practices. This is certainly the case for getting veterinary support from the Ministry of Agriculture.



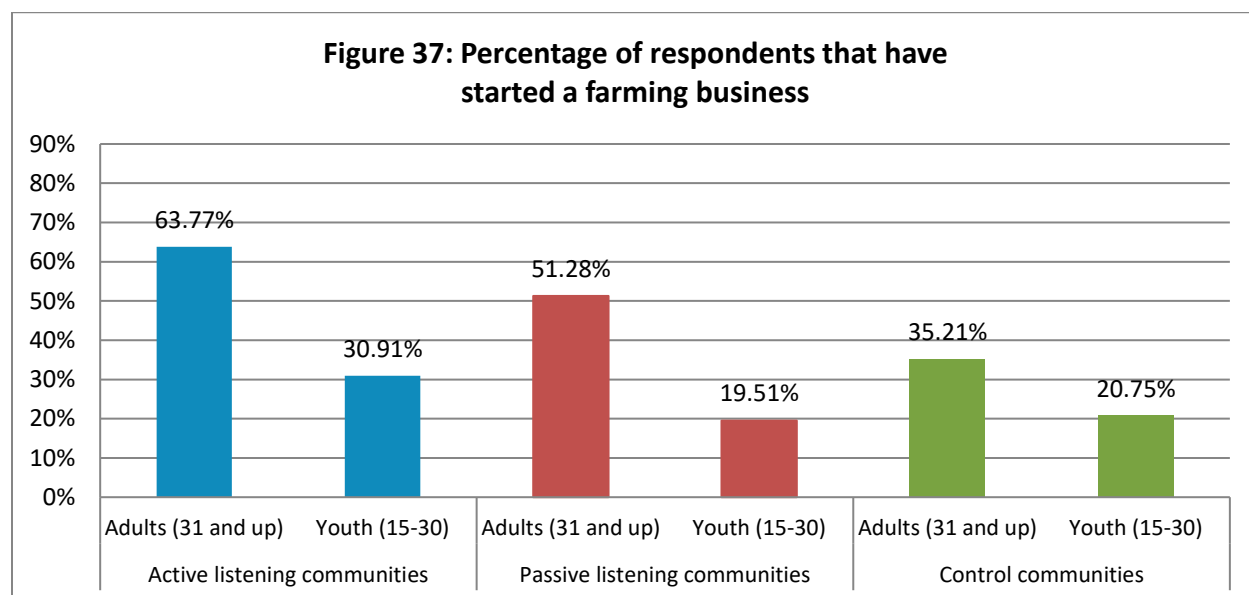
Given the relatively short time FarmQuest was on the air, the results from the following question are quite encouraging. It is clear that there was a definite increase in youth interest in agriculture due to FarmQuest.



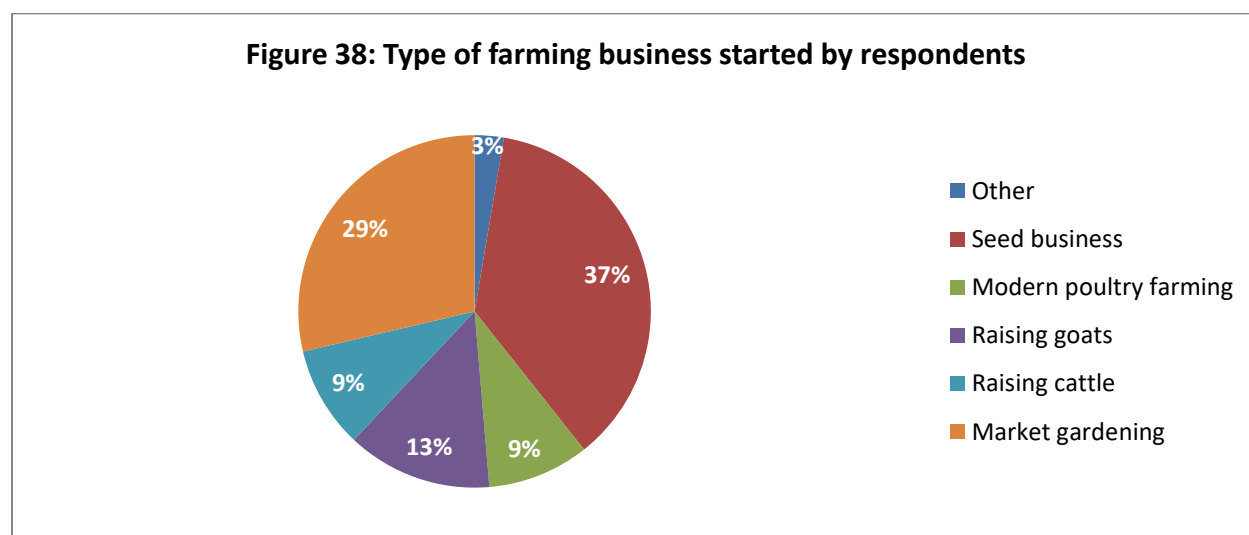
6.9 Changes in practice and intentions to practice

Through this evaluation we wanted to get an idea of how many farmers have already started an agricultural business in Fana. However, it is fairly unrealistic to expect large-scale adoption of agricultural practices and the setting-up of new businesses due to the short FarmQuest series. Instead, we want to focus on the intentions of farmers to start a business in the future.

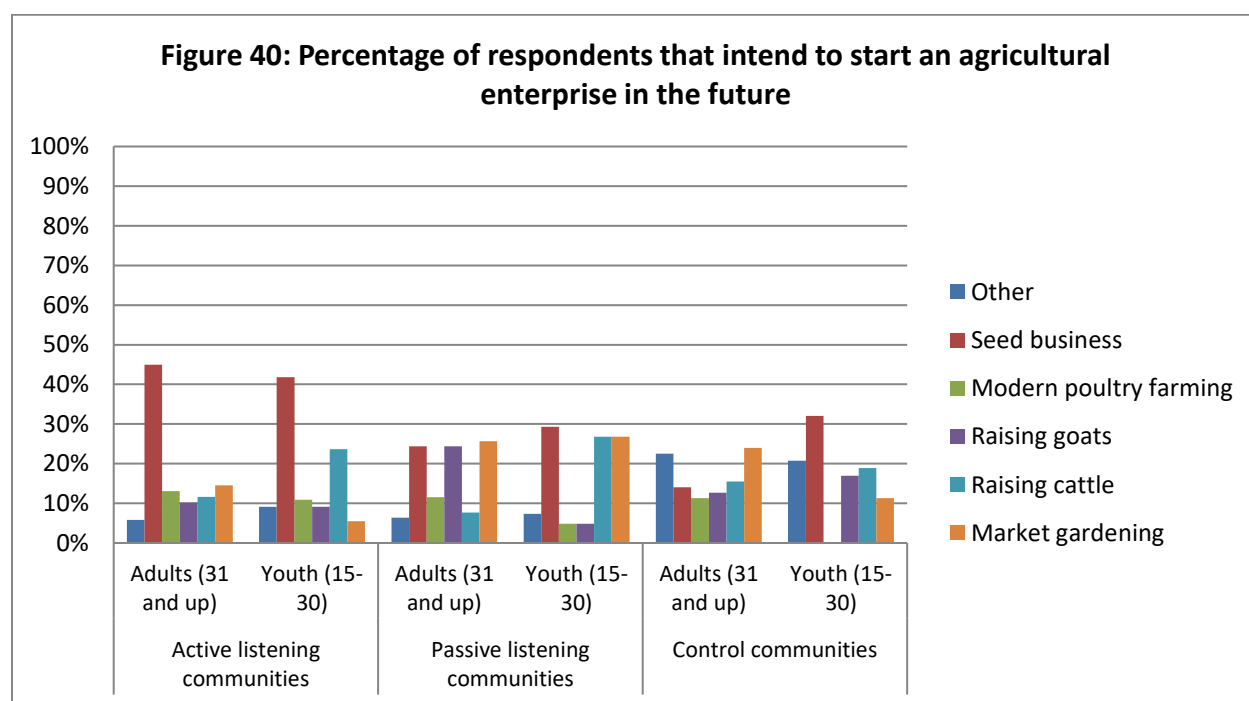
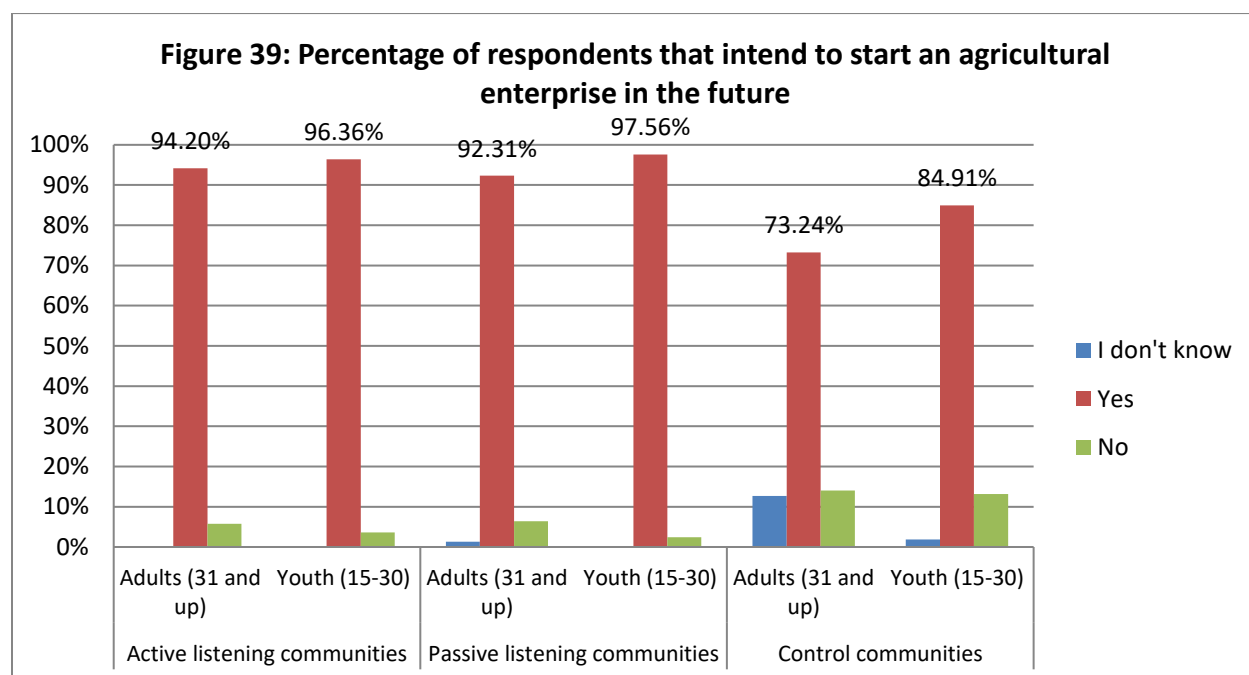
First, we measured what percentage of farmers already have started a farming business. This is in general, not necessarily because of the radio program.



Of the respondents that have started a farming business this is the breakdown of the type:

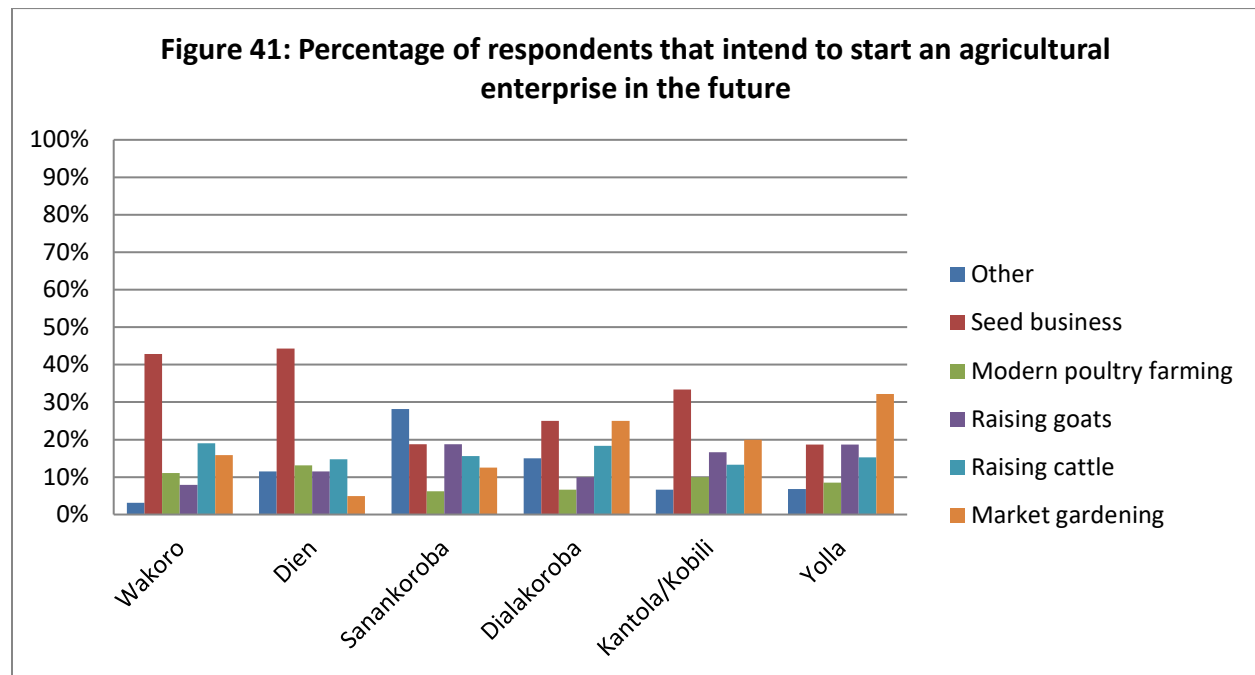


While these numbers are encouraging, the more important question for this project is the intention of respondents to start businesses in the future. As seen below there is a clear trend towards and intent to start a farming business and this includes youth.



The breakdown of intentions to practice by community shows a clear domination of seed business in Wakoro and Dien (the two active listening communities surveyed). Interestingly seed businesses were

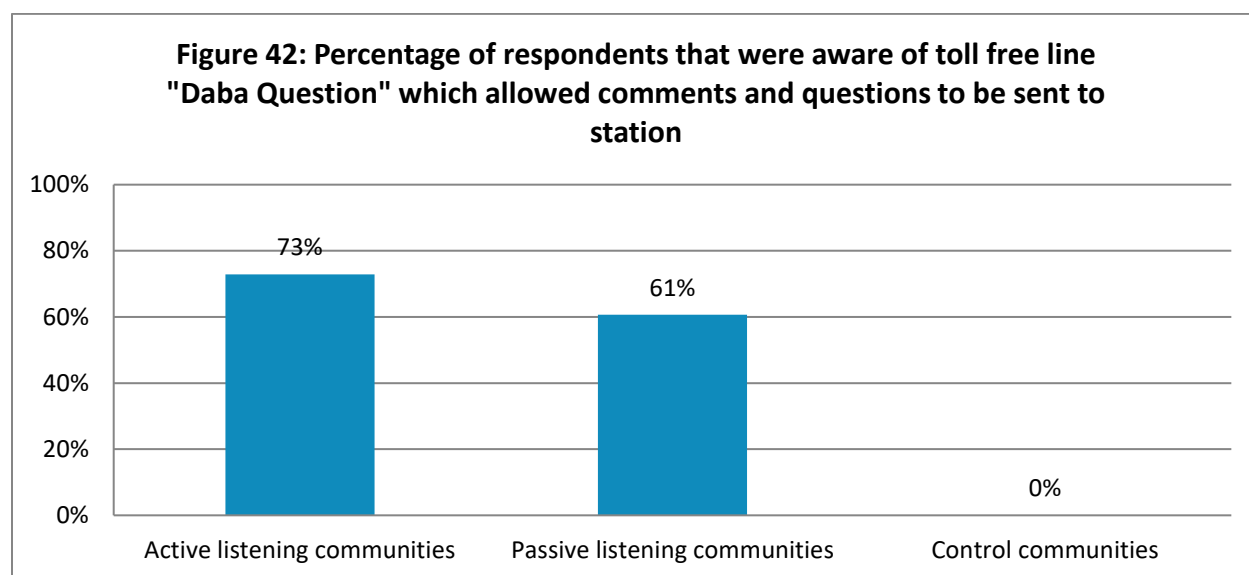
not the topics focused on by the particular contestant in these communities. This may be because Mamadou Diarra's enterprise around a seed business ended up being one of the more successful enterprises by contestants and his story was very compelling for youth. *See video on final page of report.*



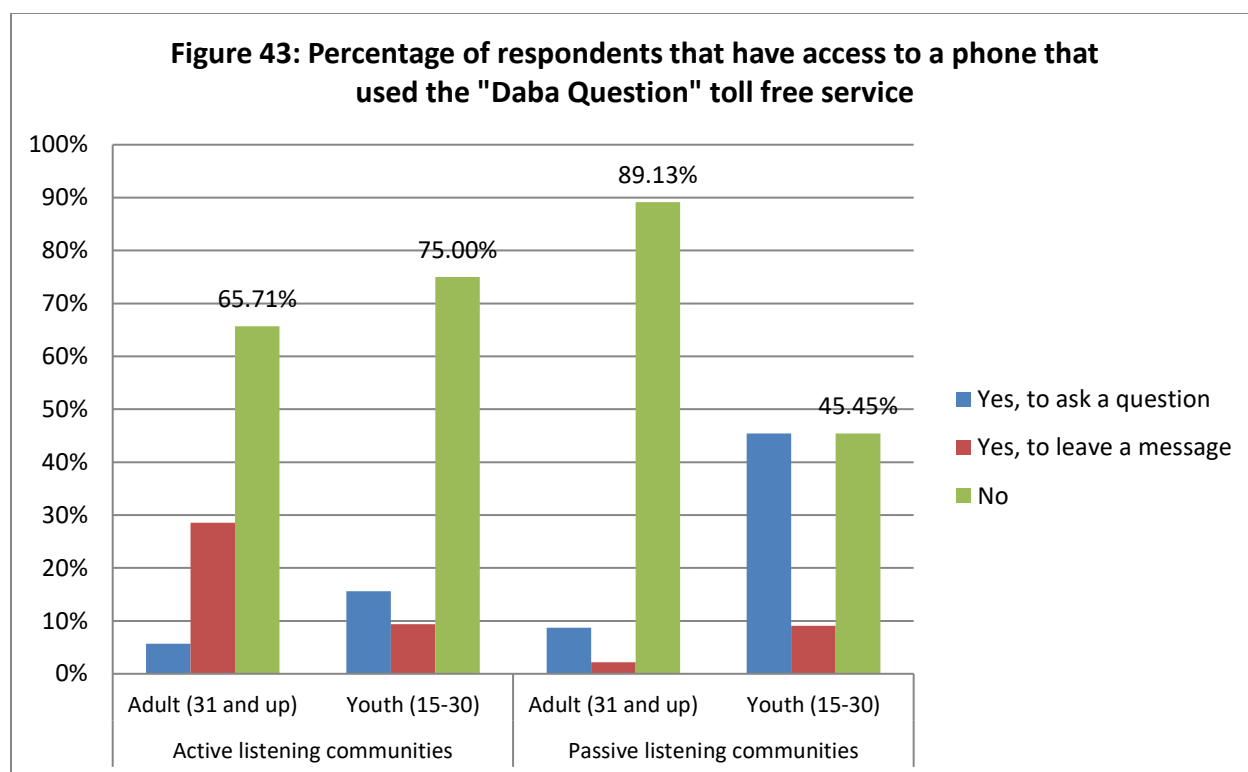
6.10 Interaction using modern ICTs

FarmQuest was designed with a strong focus on gaining valuable feedback from the listening audience through the use of complementary modern ICTs. Of particular note are two very specific trials of technologies at FRI. The first, Daba Question, is an “interactive voice response” system which uses only phone voice calls and touch tone dialing to ask questions and send comments to Radio Fanaka during and after the broadcast. This system was designed in partnership with Gram Vaani, out of Delhi India. The intention was to provide a service which required very minimal literacy and could be used by any farmer.

An effort to promote the service heavily during the programs led to a high awareness of the service.

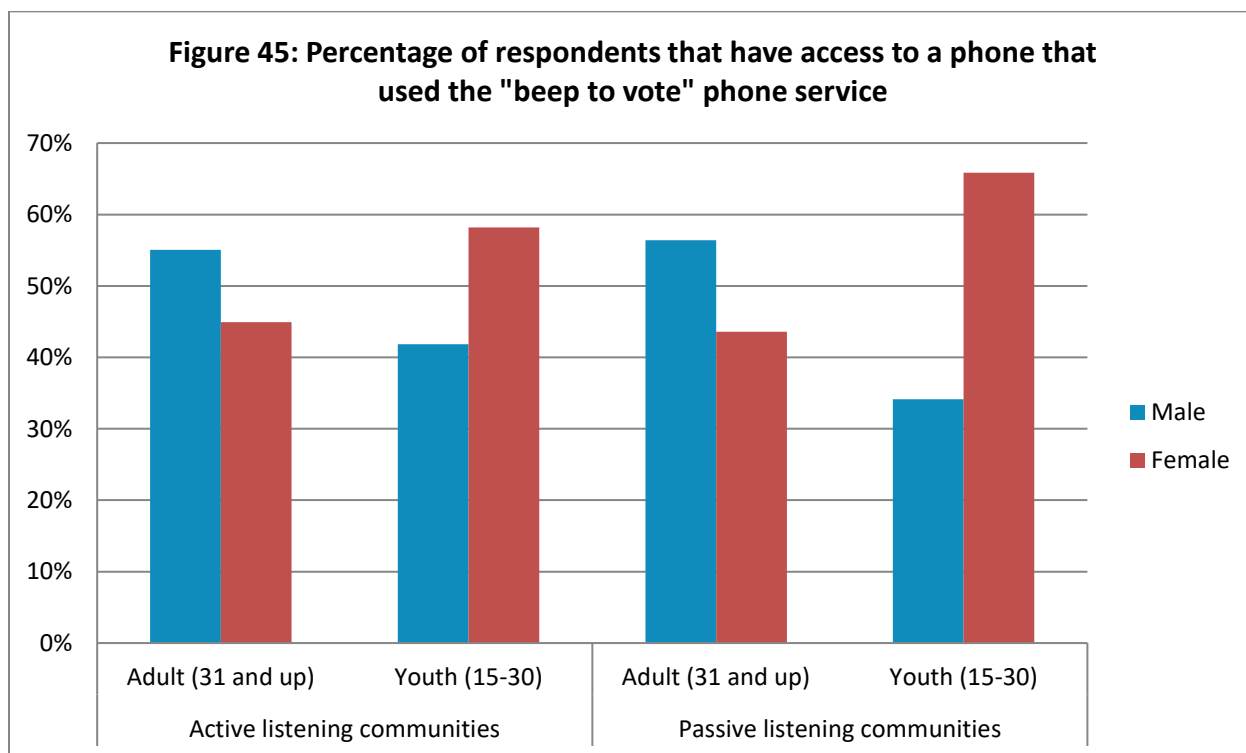
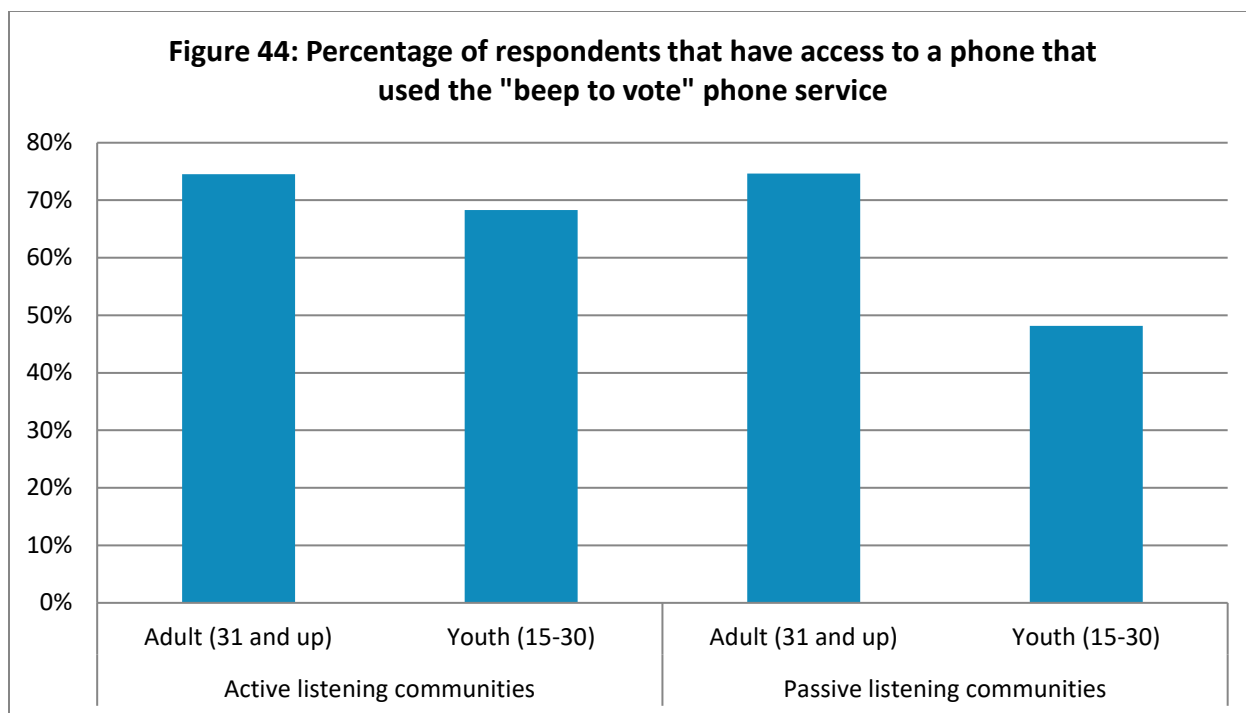


However, this awareness did not necessarily lead to a high usage of the system. Leaving messages and asking questions on this system seemed to be a very new concept to these communities. Radio Fanaka received a high number of “phantom calls” where the user hung up before listening to the prompts. This probably shows that not everyone was comfortable with the system or it was not explained in enough detail during the broadcast. There was, however, an effort by FarmQuest hosts to run short “plays” or instructional segments which depicted the host Vieux Fatogoma as a confused user of the system, and explained how it was to be used.



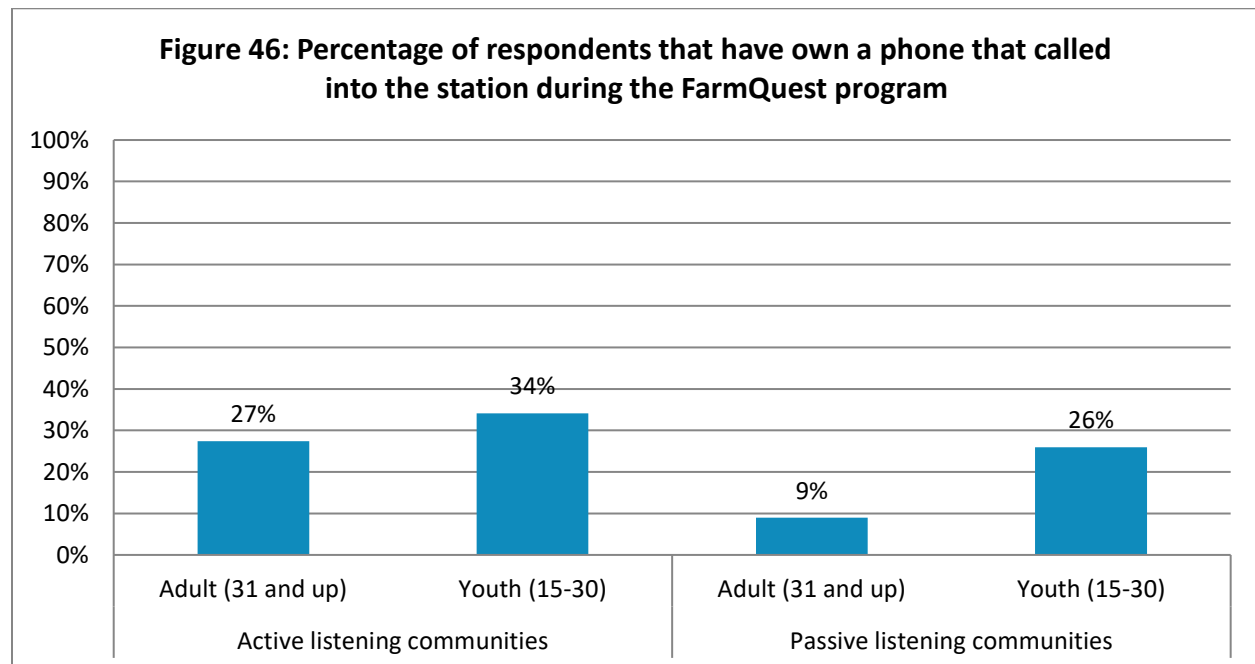
The second technology which was trialed for one of the first times in Mali, was FRI's "beep to vote" system which allowed Radio Fanaka staff to ask "yes or no" (usually binary) questions during broadcasts and tally audience votes through the process of beeping (also known as flashing in many parts of the world). Beeping is essentially just calling a number and then hanging up after one ring. The intention of this service was to cater to the Malian population, which in general does not use SMS (text) messaging. Culturally SMS has not taken off in Mali, so the beep to vote system is a next best alternative to gain real-time feedback during broadcasts from a largely semi-literate audience. If the listener knows how to dial a number, they know how to use the service.

Due to the service's ease of use it was much more widely used than the Daba Question IVR service. A very interesting finding was that young women used the service quite a lot. Normally, women exhibit a much lower use of modern ICTs during radio programming. However, in this case, young women were the highest users of beep to vote. One explanation could be the fact that this voting was relatively anonymous and did not require recording of voices or talking on-air, which can sometimes limit female participation.

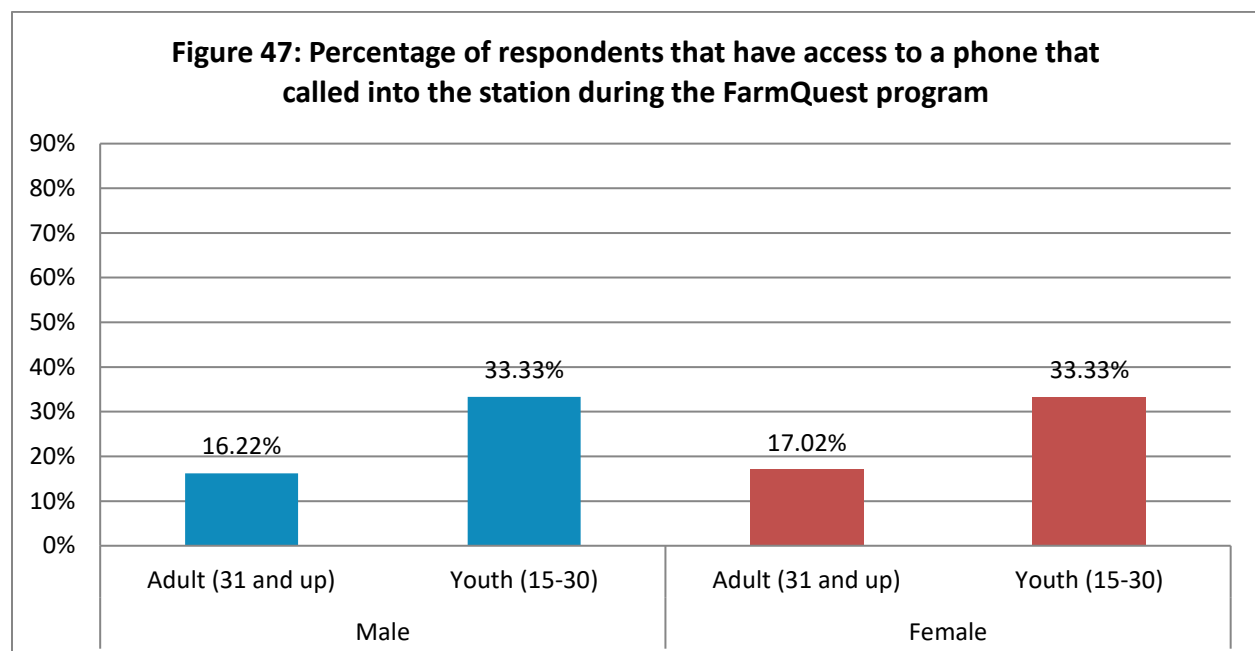


Another more basic ICT-based interaction was the simple “call-in” to the program. Call-ins were encouraged during the “off week” episodes of FarmQuest which were done live in the studio at Radio

Fanaka. The below chart shows encouraging results where youth were the dominant user of the call-in format.



When disaggregated by sex, results show that female respondents called-in to the show almost the exact same amount as male respondents.



7.0 Triangulating station reach and interactivity

As part of the FarmQuest evaluation not only was the household survey used for measuring the reach and interaction with FarmQuest by listeners. FRI also undertook a parallel data gathering effort to pull in multiple sources of data in order to accurately “triangulate” our results.

7.1 Beep-to-vote system

Analytics from the beep-to-vote system were gathered during each of the six pre-recorded episodes. These episodes all featured basic interactive polls about the program which encouraged beeping from the audience. The beep polls during FarmQuest took the form of voting for one of two contestants who were prominently featured during the episode. The final vote which determined the people’s choice winner of FarmQuest featured phone numbers to beep for each of the six contestants. Fanto Samake emerged as the people’s choice winner of FarmQuest with 810 of the final 3,329 final audience votes.

Table 7: Number of uses of “beep-to-vote” system during FarmQuest

Episode	Voting options	Votes	Total votes
1	Hawa Doumbia	169	332
	Mamadou Diarra	163	
2	Fanto Samake	127	194
	Salimata Traoré	67	
3	Kafuné Mariko	59	93
	Diakaridia Fomba	34	
4	Mamadou Diarra	133	193
	Salimata Traoré	60	
5	No polls due to internet connectivity issue		
6	*Fanto Samake	810	3329
	Salimata Traoré	768	
	Mamadou Diarra	537	
	Hawa Doumbia	497	
	Diakaridia Fomba	477	
	Kafuné Mariko	240	
			Grand Total: 4,141

This interactive voting system was a great success for the project. Not only did it provide great interaction with the listening audience, but the system allowed the station to collect listeners’ phone numbers. These are useful in order to send out episode reminder SMS messages or voice messages in the future. The system is also very simple to operate, giving the station staff an easy way to engage with the audience without major technical expertise. Finally, the beep-to-vote system is very cheap to operate. For the cost of 6 phones, 6 SIM cards and some phone credit, Radio Fanaka was able to manage a fully functional voting system which will be useful for future programs as well.

7.2 Daba Question IVR system

The Daba Question Interactive Voice Response (IVR) system did not have the same level of use as the beep-to-vote system.

Over all six episodes Daba Question received a total of **59 calls**. The majority of these calls asked questions related to the following:

- How can I create my own business?
- How can I rear sheep?
- How can other young people in my community get involved in the competition?
- How can I find Wassaches rabbits to buy?

Radio Fanaka responded to the majority of these questions and referred callers to the correct resource people. For example, there was a rabbit expert advisor as part of the steering committee.

Some of the identified challenges of the IVR system revolved around callers not understanding the system or not understanding the directions. Furthermore, there were some major issues which caused the system to not capture the recording of the call.

7.3 VSAT internet

A previous FRI project with Radio Fanaka had helped fund the installation of a VSAT internet system at the station. Due to the location of Fana, internet access can be a major challenge. Therefore, in order to provide reliable internet service for the station during the broadcast period of FarmQuest. The VSAT system allowed the station to effectively research topics for episodes, communicate with the FRI office in Bamako, conduct “beep-to-vote” polls, check responses to the Daba Question voice call service, and send audio recordings of each episode along with a radio log sheet to Bamako after each episode.

The VSAT service continues into March 2014 but the team at Radio Fanaka is devising a plan to fund keeping the connection live in April and beyond by becoming a local internet service provider for surrounding businesses. FRI staff are working with the station to develop this plan for creating this alternate revenue stream for the station.

8.0 Key informant interviews

The formative research phase of the FarmQuest project featured focus group discussions in communities around Fana. This was a helpful exercise to help plan and design the radio interventions in the project. However, for the final evaluation it was determined by senior FRI staff that gathering key informant interviews after the end of the project would provide more value than doing more focus group discussions. Given the fact that the outcome evaluation survey was so detailed, key informant interviews were chosen as the last major evaluation activity.

These interviews followed a semi-structured format which aimed to have a frank discussion with the interviewee and gain some insight into lessons learned, as well as strengths and weaknesses of the project.

Table 8: Key informant interview main highlights

Name of key informant	Role in FarmQuest	Main highlights from testimonial
Alimata Diarra	Mentor	<ul style="list-style-type: none"> FarmQuest is the only project in the region on youth entrepreneurship. FarmQuest has allowed us (the community) to build enclosures for goats. We now count the number of heads that we have with this system, something that was not easy before because goats were left to themselves in nature. We also learned from FarmQuest how to provide a good diet for goat without a lot of expense. Feeding goats tree leaves, millet and sorghum was innovative for us and helped us a lot in maintaining our goats. With this project, I could bring my advice and my support to several other women in other villages by offering them a goat to each form their own enterprise. Women in the region are now very excited to raise goats, and this includes young women. The treatments for goat diseases are very expensive. This is something that needs to be addressed in future projects. We are convinced that the project is a revenue generating activity for young women.
Mamoutou Diarra	Mentor	<ul style="list-style-type: none"> Results have been seen in Ballan (village) from the improved seeds, agricultural equipment and the more regular visits from agricultural extension staff. There was a delay in obtaining seeds at the right time in the agricultural calendar. This was a major challenge. The duration of the project was too short. It should have been 2-3 years in order to adequately support the community. The radio program has encouraged farmers in the community to seek out improved seeds. This is not a fad; it seems that it will continue into the future. The project should increase the number of beneficiaries beyond the six contestants in order to have a larger impact. Training farmers in business management would be a worthwhile exercise in future projects. It will allow them to measure their

		investment and profits.
Diakaridia Fomba	Contestant	<ul style="list-style-type: none"> • FarmQuest is the only project I know of in the region about raising poultry. • The FarmQuest project taught me and helped me to build improved chicken housing and introduced me to better varieties of chickens. • The project allowed me to share and benefit from expert advice from PDAM (Sikasso) about the best way to raise and monitor hens. • The project taught me how to prepare good food for my chickens cheaply. • I intend to build more barns with my own money to allow for my growing number of hens. • I need training in business management to share production costs and profit. I would like to have further training on the manufacture of poultry feed which is often hard to find despite my efforts.
Salimata Traoré	Candidate	<ul style="list-style-type: none"> • Thanks to the project, I now have my own land to do my gardening, before I was with the other women in the family. • I appreciated the training on composting techniques essential for gardening activities • The introduction of the potato in my gardening was very much appreciated by me and many other women in the village. Some even try to buy planting materials at their own expense now. • A challenge was that seeds were insufficient to cover the chosen planting area. The lack of water because the wells are too deep near the garden also posed difficulties. • The lack of follow up to fight against insects is another challenge because Moumine (local government agronomist) cannot be present all the time. • I am interested in training on the use of both organic manure and chemical fertilizers which could give more efficiency to my enterprise. • Staff at CIWARA which were referred by the FarmQuest program supplied a pump to compensate for the deficit of water.
Boubacar Touré	Local community councilor and focal point for partner NGOs in FarmQuest	<ul style="list-style-type: none"> • The mission of the City Council is planning the social, cultural and economic development of the municipality and to ensure its implementation. • Since the project directly affects the community and the development of priority sectors of agriculture and animal husbandry, the city served as coordinator between the community and partners with the project, linking listeners and the contestants up with support and advice. • The problem for the community is great ambitions but lack of resources. We would like to see some kind of continuation of this project and more partners engaged to support community development in Fana. • The big lesson was a synergy of actions between the different actors. The project helped each partner to discover a link between the different development sectors (livestock, agriculture and

		others).
Bakary Bagayoko	Member of FarmQuest steering committee	<ul style="list-style-type: none"> • The FarmQuest project was an incentive for igniting the professional integration of young people in farming. • Since Mali's independence, the state was the only employer. But in reality, we need to understand that the state alone cannot employ everyone. We need private sector. • The interesting part of this project is that the youth were selected by everyone. Their families and the entire community. Although the project was a competition and stimulating, there has been coaching at all levels • The project has had several difficulties, especially in relation to the delay of the rainy season and the rainfall deficiency. • In our region we have loans at a preferential rate of generally 20%. While in other countries the rate does not exceed 10%. This is not a good situation for youth who are trying to find credit to buy equipment, inputs etc. Therefore we are currently thinking about creating a system of agriculture cooperatives in the region. This will make them more powerful in the eyes of lenders, banks, microfinance institutions and even the state for funding needs.
Daouda Dembelé	Producer for FarmQuest at Radio Fanaka	<ul style="list-style-type: none"> • We have benefited from the introduction of new editing techniques at the station. • We received training on script-writing through reality radio approach. This has improved our techniques quite a lot. • FarmQuest has strengthened our relationship with farmers in all of the communities that were involved. • Towards the end of the project I started to have a lot of autonomy in editing and producing the episodes. This is what was especially important because now I know how to produce high quality programs without assistance from anyone. • The number of equipment (computers, digital recorders, etc.) should be increased because everything is via computer now and the radio must be well equipped to meet these requirements and be competitive at all levels. • The ICTs were very innovative because they allowed listeners to vote for free. This was a motivation for their participation in the programs.
Fatogoma Sanogo	Host of FarmQuest and staff at Radio Fanaka	<ul style="list-style-type: none"> • I think that it was through the FarmQuest project that I discovered how to be a true leader. Providing real entertainment, this is what I did with farmers in the field. This to me was a great lesson to live with the farmers in their communities. • Training in script-writing, interviewing techniques, and presentation of programs has been strengthened due to the project. • FarmQuest has been strengthening our relationships with farmers and communities. • The planning of the business plans for candidates should be well prepared in accordance with the agricultural calendar and farmers.

9.0 Discussion and conclusions

FarmQuest was a new type of project for Farm Radio International and indeed for the communication for development field generally. Radio dramas are very common across sub-Saharan Africa, but bringing the element of true reality into the programming and introducing a competition element is new. This pilot project has allowed Farm Radio International to test a new and exciting medium to deliver valuable, timely, and most importantly, entertaining content to rural populations in Mali.

Where this project succeeded with flying colours was its innovative use of story-telling and entertainment which is unfortunately often sorely missing from agricultural programs across Africa. Radio Fanaka's ability to deliver complex and well-thought-out programming has increased substantially. Their capacity to deliver engaging programming will be a major asset to their station for years to come. Indeed, before the project began most programs on Radio Fanaka were almost of an ad-lib nature, lacking the levels of professionalism which were clearly apparent in FarmQuest.

Furthermore, Modibo Coulibaly's (Field Director for FRI Mali) ability to build valuable relationships with a wide array of knowledge partners in this project has been invaluable. The lesson here is that these relationships are absolutely crucial to sustain a project of this nature in the future.

Technology ownership, awareness and listenership

Through the detailed outcome evaluation survey we were able to further understand the way that reality radio impacts its listening audience.

First, mobile phone ownership and usage in the target communities was very high. In fact, higher than we initially estimated it to be, especially for youth. More than 90% of those youth surveyed own a mobile phone. This further establishes the rationale for having a strong link between modern ICTs and radio. It is encouraging to see so many women, and especially young women own mobile phones. Not only this, but they used them.

General listenership to the radio was also very high in the communities surveyed. But fairly large groups of people only listen occasionally. While this may limit the potential reach of the program, it does tell us that promotion of the program and keeping the content engaging and entertaining is absolutely a major factor in determining the success of radio program like this in Mali.

Awareness of FarmQuest was very high in the measured listening communities and as expected, almost non-existent in the controls. Similarly there was reasonably high listenership of the programs with 43% of respondents listening to either all or most of the FarmQuest episodes.

Knowledge gain

One area of the outcome evaluation results which was somewhat surprising, given the short length of the program, was the high level of knowledge gain among listeners. When comparing respondents in both the active and passive listening communities versus in the controls, listeners performed roughly 3-4 times better on the knowledge quiz than their counterparts in villages who did not listen. There were slightly lower scores for youth who listened to the broadcast, but this is expected due to the fact that less of them are actually experienced farmers.

This is a very big finding. FarmQuest was aiming to change youth attitudes, but knowledge gain is clearly an element in showing that a program is credible, trusted and educational.

Attitudes

FarmQuest was conceived around the idea that youth attitudes towards farming are very negative, pushing them to look for work in other sectors. The results on attitudes in listening communities versus control communities were mixed.

Youth seem to have a similar positive view of farming generally. Yet, they still have a fairly strong view that there are more legitimate options for work in the city. An encouraging result is that all respondents see that farming has a future for educated people. This view was more prevalent in listening communities as well.

However, despite the positive views of farming, listening to more episodes of FarmQuest didn't seem to have a major effect on the attitudes of respondents. This is an interesting finding, given that it would be expected that there would be a higher difference. One may point to the fact that there were only six produced reality radio episodes as part of this project. Or perhaps there may have been some error in the way the questions were asked. In either case, it will be necessary to do more research on the effect of this type of program on attitudes of listeners, especially youth in future projects. Whether the duration of the project has an impact will also be an interesting research question.

Boosting local services and change in youth interest

The evaluation revealed that indeed local services (extension and others) increased in quality after the program aired. Also, another extremely positive finding was that community members were starting to see much more interest in farming by youth in their communities. It is this interest which is crucial to beginning to de-stigmatize agriculture as a livelihood. Perhaps over a longer time period this interest could translate into more changes in attitude.

Practice and intentions to practice

FarmQuest was too short of a project to expect large scale adoption of agriculture techniques, and this was not really even the goal of the project. However, the evaluation showed that there were many people who intend to start practicing some of the things they heard on-air. And by looking at some of the testimonials in the key informant interviews, this was clearly the case. People were demanding more inputs, services etc. because some were beginning to try things on their farms.

In future scaled-up versions of FarmQuest it would be interesting to examine the longer term effects of the program on practice more explicitly in the research design.

Program quality

FarmQuest received very high scores for its: quality, usefulness, respect for farmers, and level of interaction. Clearly the audience enjoyed the program and trusted its content and hosts.

Gender differences

Women, and especially young women showed some very encouraging results. First, young females were more likely to: own a radio, have more knowledge gain from the program in comparison to control communities (an increase from 13% to 53%), use the Daba Question phone service, use the beep-to-vote system, and call-in. This is somewhat uncharacteristic of programming Farm Radio International has measured in the past. This may be simply a new trend in Mali, or the results may owe themselves to the program structure itself.

Women were given equal treatment during this program and gender differences were considered in the crafting of each episode. Everything from having hosts of both sexes to talking about issues that are traditionally attributed to women farmers. FarmQuest seems to have rung especially true to young women.

Final thoughts

Three thousand three-hundred and twenty-nine votes were cast during and immediately after the final episode of FarmQuest to determine Mali's best new young farmer or "Daba Kamalen." This in itself illustrates the potential of the reality radio format. People listened, and most importantly, youth listened. This first step of "gaining their ear" is where the conversation around bringing youth back to agriculture in Mali, and likely many other African countries, needs to start. Through expanding FarmQuest to a larger and perhaps multi-season program on Malian radio, youth could be truly valued in the discussion about their futures in this country. We know that knowledge around specific techniques can be gained from this type of program as well, allowing all ages to benefit from the programming.

Daba Kamalen, in Malian culture was in actual fact a traditional competition held in Bambara-speaking communities across Mali, although this practice has not been practiced for several decades. One could argue that FarmQuest or "Daba Kamalen" was a return to the way farmers would offer one another support on their farms with a spirit of competition. Reality radio as it turns out is not all that different from Bambaran culture than we may think.

During the final months of the FarmQuest project Farm Radio International involved a journalism student, and free-lance writer from *The Toronto Star*, to document the progression of the project.⁸ The following video was produced involving interviews in the village of Ballan, one of the listening communities. The background song written in support of contestant Mamadou Diarra says it all:

Mamadou, you are the hope of your parents

who brought you into this world.

Mamadou Diarra, you are the hope.



Video: Courtesy of Marc Ellison for the *Toronto Star*. <http://www.youtube.com/watch?v=9IleOo7V5Ic>

⁸ Ellison, Marc. *The Toronto Star*. "Can a reality show really deliver aid to Africa?" http://www.thestar.com/news/world/2014/01/20/can_a_reality_show_really_deliver_aid_to_africa.html