

Enhancing Afghan female farmers’ agricultural knowledge in Afghanistan “Agricultural Radio programs responding to farmers’ needs”

Aybak District, Samangan Province - Afghanistan

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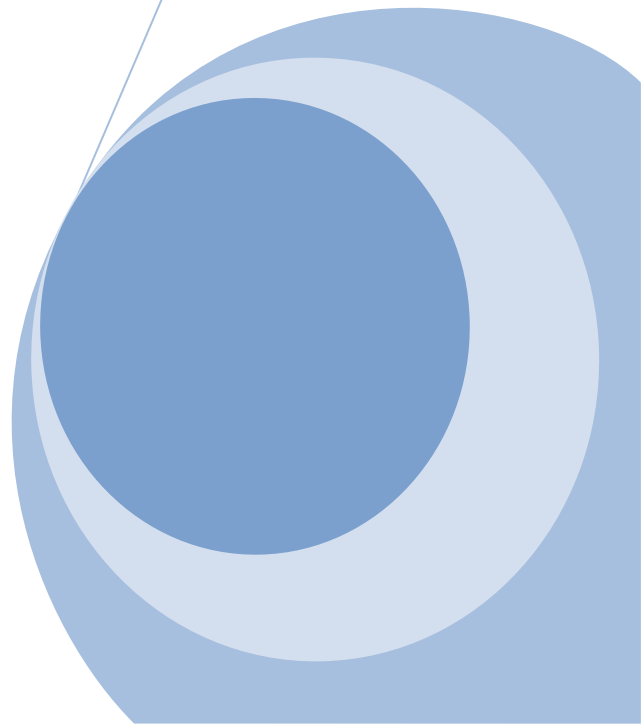
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September, 2011

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Dedication

I dedicate this work to my family, who give me inspiration to give my best to this project.

Special dedication to my Mom and Dad for their prayers, help, encouragements and support during my academic life.

Dad your dream has come true!!!

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Abbreviations

ARP	Agricultural Radio Programmes
DOA	Department of Agriculture
EW	Extension worker
HLP	Horticulture and Livestock Project
ICC	Information and Communication Coordinator
MAIL	Ministry of Agriculture and Irrigation and Livestock
MIBU	Ministry of Information and Broadcasting and UNESCO
RAM	Radio agricultural messages
SMCR	Sender, Message, Channel and Receiver

Abstract

Women play significant roles in agriculture all over the world. Although women are directly involved in agriculture production activities their roles are not well recognized in the agricultural sector. Women have no or limited access to extension services. The social custom and work burden make them to have less contact with extension services or also could not receive the first hand information through male extension worker.

Women are the major part of the Afghan society. They should not be neglected in the development process of the country. A large portion of Afghan women (70%) are involved in the agriculture sector of the country. However they are involved in this sector, but the lack of information hinders their development process and they do not have full access to the agriculture resources. The continuous civil wars made women to be back warded than men. In order to involve women in the development process and to update their knowledge in the agriculture sector, it needs to consider the importance of mediated communication in the enhancement of their agricultural knowledge. Radio is one of the most appropriate mass medium that rural population is familiar with because it transcends the illiteracy barriers and requires less intellectual exertion than any other media.

The main objective of this research was to explore the contribution of media communication in rural areas where there is limited technical assistance available to female farmers. The conclusions and recommendations based on the findings of this study were presented to MAIL. The study was conducted in the Aybak district of Samangan province, located in the North of Afghanistan.

The study found that radio is a valuable medium for women to get updated agricultural information through it, but the number of the programs which aired in the radio was not satisfactory due to its shortage in airing time and duration. The study also shows a great potential that radio is an effective medium to increase agricultural knowledge of female farmers. Most farmers have big desire to use radio in their daily life rather than any other mass mediums. By all means female farmers appreciated the agricultural radio programs and have big desire for the future broadcast in regards with some improvements that female farmers suggested.

The importance of this study is for both female farmers and HLP radio communicators. This study does not outline to solve Afghan female farmers agricultural problems, but it gives insight to HLP about the importance of agricultural radio programs in enhancing Afghan female farmers' agricultural knowledge. Also further research on mediated communication in the country is required to contribute in the development process of Afghan female farmers.

1. Introduction

1.1. Background

Afghanistan is a land locked country without maritime claims. It has traditionally low rainfalls whereas 80% of its agriculture is dependent on some form of irrigation system, it has 12% arable land and the cultivable area has been estimated at 8 million ha, which is 12% of the total area. The labour force is 69% in agriculture, 15% industry and 16% services. Afghanistan exports fresh fruits, dried fruits, nuts, Karakul skins, wool, carpets and medicinal plants; overhand it imports what it does not produce such as, fertilizers, medicine, metals, clothing and foot wear, petroleum products, machinery and equipment, basic manufacture goods and food items (Henneberry n.d).

Agriculture is a major source of employment of the labour force in Afghanistan. A large majority of the population lives in rural areas which also harbour the highest incidence of poverty. Agricultural performance is thus pivotal for overall economic growth and poverty reduction and offers the only significant prospect for raising farmer incomes, contributing to food security, providing rural employment and reducing the vulnerability of resource poor rural people. After cereal and industrial crops, Horticulture and Livestock subsectors are recognized as the highest priorities, given Afghanistan's comparative advantage in these subsectors and their close linkage with exports and poverty reduction (HLP, 2009).

Since three decades of continuous war influence the present development trajectory of Afghanistan. Civil wars brought injustice and conflict and thereby limiting the resources of the country. The conflicts have left many of the population victims of the brutalities of the war. These successive wars killed millions of Afghans; many Afghans left the country and lived in the foreign countries as refugees. Over a million people become orphan and mimed, roads, bridges, water supply systems and culvers were destroyed. The education system, agriculture and pastures drove much in fragile conditions and become unproductive.

Women lost the chance for education and employment, they became a passive part of the country and only men become the supporter of their family income. The state was demoralized by the foreign countries continuous interventions and terrorist groups. The Taliban regime has left Afghanistan as one of the poorest countries in the world. Fortunately the giant step towards peace building has been taken in 2001 in the Bonn agreement. The government not only focused on the rehabilitation programs even launched the strengthening peace program to encourage land lords and former Taliban who were not really seriously involved in the crime to rejoin the society and contribute in peace building process of Afghanistan (ANDS, 2008). However, the process of recovery of the agriculture sector has started in the country, but requires the collaboration of Afghans to contribute constructively in achieving common goals.

RAAS (2003) reports that the population of Afghanistan is 20 million, with 16.5 percent living in rural areas, and 80-85 percent of the rural population livelihood depending upon natural resources, whereas some of them have limited access to the markets due to high costs. In this regard a formulation of development agenda is needed that should be based upon appropriate participatory mechanism to ensure the representation of all stakeholders.

Sopory (2008) considers effective communication process as an empowering tool for voiceless people who are usually not the sender of a message in wider communication system. Chakravaty(2007) states that communication is an effective tool for both the perseverance social order and developmental change.

Media is used as a tool for development. The central goal of communication is to empower people in taking action that affects positively their own development in regards to their social and cultural needs and requirements. In this regard the various communication vehicles need to be used from mass to community and new technologies to traditional and folk media and interpersonal communication. Communication puts the people who are most affected at the centre of the discussions, debates and choices. Decisions needed to guide their own development to build mutual understanding, share information, agree to collective action and amplify the voice of people in order to influence the policies that affect their lives and leads to successful and sustainable development action. Therefore communication can be considered as an important tool for development (Glocal times, 2010).

Considering the role of media it is stated in ANDS (2008) that the strategic vision for the media, culture and youth sector is to protect the cultural inheritance of Afghanistan ensuring confidence and awareness in a stable and productive future for the country. Therefore the ANDS vision for rural and agriculture development is to ensure the well being of rural communities especially the poor and the most vulnerable section within the national economy. In 2005 it was estimated that Afghanistan had 45 FM radio stations and 10 television stations. The government runs a national television station and seven radio stations that are located in Kabul, and regional television stations in nine provinces. Radio in Afghanistan is the most useful source of information in rural and urban areas, and mainly urban areas had access to the local radio stations in 2003. In the early 2000s, Radio Television of Afghanistan (RTA) was the most powerful broadcast station in the country. After fall of Taliban government four new cable stations appeared which broadcasted U.S and Indian programs, especially in 2005 the private TV station by the name of TOLO TV achieved an enormous popularity by airing western style programs and private radio station. Radio Arman also followed the same popularity among Afghans. In 2005 and 2007 some government official had their own communication facilities (Country profile Afghanistan, 2008). An enormous amount of TV stations and radio networks exist at the present in the country operating under a wide range of ownership from the private, government, public, political, provincial owners and sponsors (BBC News, 2011). The USAID (2006) reports that whereas Afghanistan has the extreme low literacy rate of 10 percent in rural areas it is relevant to consider that 60 percent of the households have radio ownership which may provide effective means of information dissemination through radio programs for market information and farmers education.

1.2. Problem definition

The Ministry of Agriculture, Irrigation and Livestock (MAIL) in the last years has been working hard for the improvement and rehabilitation of agriculture because it is one of the main income sources of the country. These improvements and rehabilitations are possible if the Ministry reaches all parts of the country to organize extension programs and if the ministry employs male and female extension workers to achieve its goal. However the agricultural extension programs have been unable to reach all farm families. In the rural areas MAIL needs sufficient extension staff to communicate with farmers and disseminate the agricultural information to

them. Due to lack of security the numbers of female extension workers in rural areas are less that cannot afford to reach all female farmers and is affecting them not to get agricultural information. Therefore, female farmers have little access or some of them have no access to extension services. On the other hand in Afghanistan Extension workers have been traditionally male who cannot give extension services to female farmers due to cultural restricts. The social status of women in rural areas has always been resented. Men and Women in Afghanistan follow a division of labour and social economic expectation. In instance rural men have also been responsible for the household income and are expected to provide it for his family. In contrast women are rarely responsible to search for employment even if they have their own business they claim to cede their financial issues to their brothers and husbands. Furthermore, Afghan women have little control over their choices like in accessing markets, credit and employment. This determines the gendered division of labour roles (Pain and Saton, 2007). The lack of information available to and of Afghan women hinders the development because rural women contribute to household income throughout the country. It is pointed out by women themselves as well that cultural constraints and expectations play the greatest role in limiting women's livelihood. In this regard media can reach to rural women within their homes without any restriction and give them chance to enhance their knowledge (Pain and Sutton, 2007).

Sopory (2008) reports that based on studies on the impact of the mass media, women's exposure to the mass media is not wide spread and is less satisfactory. While generally women make half of the population and half of the audience. Therefore it is essential to ensure women's participation and involvement in all development plans in education, family, country development, health, nutrition, in order to make them successful to achieve this goal. There is a need to invest in women's involvement as they are in many ways less advantaged than men and have serious disabilities and little access. Particularly when it comes to education as it is long term expensive, the use of mass media is recommended. So far the mass media has not been successful to inform women and prepare them to play their important role in society. Investigations indicate that there is a general lack of awareness in both men and women on their rights, problems and opportunities.

Radio is the most ideal mass medium available to reach vast segment of the population in the developing countries or it is the only mass medium that reaches the rural population even in remote areas which helps them to get informed about their society and other societies beside of increasing their knowledge about different issues. It is enormously supportive medium, particularly in context of poor women in their struggle for legitimate space and autonomous markets to discuss issues that main stream media may not be interested (McLean, 1992). It means that media can cross boundaries of distance, security, socio cultural issues and different aspects to reach all over the world including remote areas.

The consideration of MAIL that it is important to enhance the knowledge of female farmers through other means than meetings and consider mediated communication such as radio programs inspired the start of this research. This research explores the role of radio programs in the enhancement of Afghan female farmers' agricultural knowledge.

The report of this study is organized into six main chapters. Chapter one presents the background, the objective and research problem. Chapter two presents literature review related to the use of mass media for rural development and the role of agricultural radio programs. Chapter three concentrates on the research strategy, it explains the research methodology and a country profile relevant to this study and gives description of the study area. Chapter four

presents the findings of the study from field work. Chapter five provides the discussion and conclusion and also recommendations of the research are presented in chapter six.

1.3. Justification of the study

Women play significant roles in agriculture all over the world. Although women are directly involved in agriculture production activities their roles are not well recognized in the agricultural sector. Women have no or limited access to extension services. The social custom and work burden make them less contact with extension services or also could not receive the first hand information through male extension worker. The women are not only responsible for their agricultural activities, but also responsible for doing household chores; cooking, taking care of the children their health, education and many other productive and reproductive roles. Despite the importance of women in agriculture and as large agricultural producers female farmers still have to carry out their agricultural activities without support of agriculture services such as extension services. Hence this study considers it important to enhance the knowledge of female farmers through other means than meetings and considers mediated communication such as radio programs. It will help to increase the knowledge skills which enhances vital path to increase the efficiency of the women farmers.

There are limited studies reporting on women's role in agriculture in Afghanistan. Therefore, it is expected that this study will be a good asset for development practitioners who are involved in making effective programming for female farmers in Afghanistan. This research does not want to suggest that men do not face particular problems or do not need agricultural messages.

1.4. Objective of the study

The main objective of this research is to explore the contribution of media communication in rural areas where there is limited technical assistance available to female farmers. The conclusions and recommendations based on the findings of this study will be presented to MAIL.

1.5. Limitations of the study

There were some limitations which hindered the research activities such as precarious security situation in the country, also in some of the villages security concerns was high and the researcher was not allowed to visit far distant villages.

During the research the researcher noticed hesitation of female farmers during interviews in providing information about their household and other related issues. Meanwhile in one of the villages the researcher was not proficient with the language that was spoken in that village. This posed communication barriers and prevented direct communication with female farmers and for that reason the researcher communicated with them through a translator which was time consuming. It will be obvious that some general socio-cultural features that impede on women's full participation in Afghan society are noticeable in this research, both to the respondents as to the researcher.

2. Literature review

The chapter presents the theoretical concepts of the research and discusses a set of research questions in order to test the problem, objective and theoretical concept.

2.1. Communication

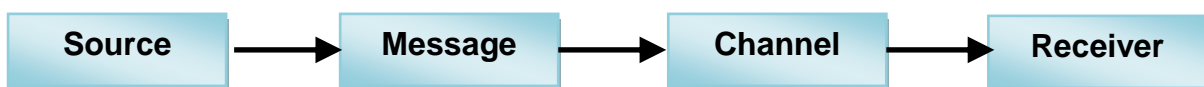
The word communication is driven from Latin word communes, means common. In this application means common ground of understanding. Communication is a process that uses a set media to transmit ideas, facts, and feelings from one person to another. In this process a set of symbols, actions, figures, pictures and words are used (Anand, 2007). Also (Leeuwis, 2004) defines communication as process that human beings exchange meanings through different devices such as words, pictures, music drawings, body language, letters, pamphlets and etc.

“The process which involves all acts of transmitting messages to channels which link people to the languages and symbolic codes which are used to transmit such messages. It is also the means by which such messages are received and stored. It includes the rules, customs and conventions which define and regulate human relationships and events” (Ugboajah, 2001 cited in NOUN, 2008). Communication is essential in agriculture sector which is used to provide people knowledge and information. The information and communication technologies provide new options to farmers and households directly or indirectly for accessing the information and are likely become important in extension systems to support extension staff to provide information to diverse clients (World Bank, report).

The process of communication can be conceptualised as involving a sender and a receiver constituting the two important parts of communication. They get connected in the communication process such as conceiving, sending, receiving and comprehending. Besides these elements clarity and language are also seen as essential for effective communication. The communication process is considered complete when the receiver understands the meaning of the message and for that choosing proper language is essential. Communication processes take shape in different ways such as; written, printed, audio and visual media (Sopory, 2008).

In relation to communication components with respect of the sender and receiver, (Boone, Meisenbach and Tucker, 2000) state that communication has four components in the relationship with SMCR model, developed by David Berlo. The components are discussed in the following:

Figure 1: Boone, Meisenbach and Tucker (2000) Communication Model



Source:

Is the origin basis of information carried by mass media channels depending on the role of the communication, Individuals or organizations are a source of information which is a source for a sender to send the message.

Message:

It is the content that is sent. It contains in advertisements, news, stories, television and radio broadcast and include various stages for the culmination of work from many different professionals. The message should match the needs and preference of various audiences because messages are doomed to fail if it is not understandable and relevant to the audience like radio and television use different types of message to match their programs to their audience needs. Hence the audience analyses are important in agricultural communication and the message needs to be designed considering the particular audience.

Channel:

Is the vehicle used to deliver a message to a receiver or a message flows from a sender to a receiver. In the mass communication process the channel can be a magazine, a newspaper, television or radio programs or other medium. The selection of the channel is upon audience choice that tends to compare communication channels according different criteria and value that they have for specific types of information. Audience chose the channel according to their needs and preferences which will be accessed easily and the research has shown that the use of television and radio rate is higher than other communication channels. Sometimes the message which is intended from the sender to be received correctly by receiver goes wrong such as, bad printing, noise, distortion and radio interferences, etc. Hence the sender and receiver can change roles with the original sender receiving feedback from the original receiver through a similar communication procedure (Leeuwis, 2004).

Receiver: Is an individual or within a group targeted by the source which is called the target of communication. In the past agricultural communications was assessed that how farmers receive information and how extension services could better their information needs through field days, publications and other things. In this regard the use of radio in 1920s, television in 1950s and computers and other electronic technologies in 1970s begin to work and their goal was to provide a clear picture to the audience, and it still continuous research in this area.

In the communication process the message needs to be developed according to the needs and requirement of the audiences. The communicators should have information about the educational level, occupation, attitude, behaviour, beliefs, group loyalties and other norms of the audience. This make a communication process to be effective, but most people think that communication is finished when the message is passed to the receiver and mostly failed to get feedback. For the effectiveness of the communication through radio programs it must be in local language and idioms. The communities' specialities such as social norms, sensitivities of communities and their cultural beliefs need to be considered. These programs require giving space for clarifying doubts, addressing misgiving on various issues and interaction between sender and receiver of the message (Zaidi, 2005). Also In the communication process disagreement and rejection exists. The receiver has the right to accept or reject the information because it is not always necessary that the shared message must be accepted by the receiver so the communication is effective when the message is understood and shared between people (Anand 2007).

According to Marsen, 2006 the field of communication goes from personal to the impersonal as defined below.

Interpersonal communication: It occurs when two person or a small group exchange message in an interaction or context ways like; face to face conversations, exchanging email messages and telephone conversation.

Group communication: This type of communication depends to the number of participants taking part in the conversation and it is a continuous issue.

In the group communication the interpersonal factors such as; shared values and codes are used.

Intercultural communication: It describes the relation between languages and ethnic groups, interacting in an international context or in a context that one culture is dominant like minority migrant groups and societies.

Professional and business communication: This type of communication occurs in the business field, where members of an organization interact with each other, with public, clients and other people within an organization.

Mass communication: It occurs with a large number of audiences who are not present physically by the support of technological aspects of transmission. Mass communication has an effect on large audience nationally and internationally by broadcasts. It is also the most modern type of communication like TV is an excellent example for mass communication which involves interpersonal communication and provides issues on a multicultural level.

Stevenson (1999) referred to Williams (1980a) approach in which he suggests investigation of ways through which communication has been transferred by social labour. This will help understanding the social organization and regulation as well as regulation and practices of communication. In the transformation extension, length and substitution are involved. The invention of technologies like mass media made it possible to amplify voices and perspectives across social distances and communities. Furthermore the invention of written media has helped human cultures sustainability as well as to generations and storing it across time and space. Subsequently William (1980a) urges that human society continue inventing alternative communication medium and approach which needs to be fitted into contexts (division of labour). In this regard, there is a need to develop a historical understanding of media and how technology has transformed communication. Also it should review its relationship with the government and economy.

2.2. Communication and development

The process of communication should stress sufficiently for development and empowerment of voiceless people like rural women and marginalized groups. Likewise, Chitins,(2005) states that communication is a tool for development due to its creation, transmission, maintenance and transformation of ideas through usage of mediated and interpersonal channels. Therefore the presence of communication in development in order to make action for bringing change and involving people in decision making is inevitable. Thus the communication channels help people to perform in a society to get new knowledge and skills to be able to work with people from different sectors in the development process. Sopory (2008) elaborates communication from the perspective of communication for development. The author states that communication is a participatory process which is essential for behaviour change. It involves literate/ illiterate, rural/ urban men and women to be part of this process. Thus, communication messages must be defined and designed for different target audience to bring social change at each level. Those

changes transformed to increase people's participation in development and to make them part of the development process, also in development communication is the active participation of people. In the development process, it is possible if it takes in account communication as a process of sharing knowledge and concerns among all the development parties. Stevenson, (1999) referred to Hebermas (1990) that the development process should be regarded as informing human rights that all have access to that process and the usage of appropriate medium is essential. Like in Africa public sphere and societies are developed around radio rather than television, due to the usage of the medium.

The focus of this research is more on the mass media so it is important to have insight about media and then mass media communication.

2.3. Media

"Media (the plural of "medium") is a truncation of the term media of communication, referring to those organized means of dissemination of fact, opinion, entertainment, and other information, such as newspaper, magazines, out-of-home advertising, cinema films, radio, and television, the World Wide Web, books, CDs, DVDs, video-cassettes, computer games and other forms of publishing. The term "mass media" is mainly used by academics and media-professionals. When members of the general public refer to "the media" they are usually referring to the mass media, or to the news media, which is a section of the mass media". (Gandhi, 2008, p: 3)

Meadow (2006) also notes that medium is a Latin word means middle and media is the plural. A medium is in the middle between the sender and the receiver of the message. He referred to Marshall McLuhan that the medium is the message that shows the importance of a medium in getting a cross a message. Media give shapes to our daily life by strengthening the critical abilities and communication skills that largely give existence meaning to human beings and enables them to use communication for change. The communication and information activities of different types of media are becoming gradually common good with the growing convergence of radio, TV, computers, various hybrids and specializations (Carlson and Tayie, 2008).

Media are divided in three main classes (Leeuwis, 2004):

Conventional mass media: The sender can reach a large number of audiences even in a long distance without having direct interaction with the audience, like ; TV, Radio, Newspapers, Magazines, Journals, Leaflets.

Interpersonal media: The sender and receiver have direct interaction and can change their roles easily to communicate. It also takes place without technological device as it involves physical presence of people, for example: Group meetings, face to face conversations and telephone communication.

Hybrid media: Has a degree of interactivity between sender and receiver which can reach large number of audience potentially like internet. The potential of interactivity depends on people to realize or whether they quickly respond or not like responding to an email. If the receiver responds to it lately so the communication is hardly interactive.

The mass media are useful in spreading awareness but the final behavioural change will take place only after contact with persons of credibility at an interpersonal level; hence for better

results, communication through the mass media should be combined with interpersonal communication channels. In rural areas of developing countries is crucial because interpersonal channels are powerful and sometimes it revokes the messages given by the mass media (Dubey and Pandey, 2009). The work of media to be beneficial to all depends to its time flexibility. The time of programme broadcasting may conflict to the working time of farmers which prevents them not to attend that particular program. However, people want to use it and they adjust it by their own timing, it also gives them the opportunity to store the messages with themselves and then they can use it whenever they wish. This is the advantage of printed media for literate and educated people, but for uneducated people it is only a paper not information to use it for their own purpose. Considering the work of media it is important to realize that media give opportunity for people to learn, also to distribute information in many different locations and societies within its mass use (Leeuwis, 2004).

2.4. Mass media

Mass media, and particularly radio, television and newspapers, have the image of being very powerful. They are regarded as mass media because they can reach a large number of audiences at a time. The messages through mass media reach far beyond the immediate proximity of the sender and could even get to the far areas of the world (NAUN, 2008). The mass media is highly important as it allows wider approach of social participation. Also its functioning reminds us that we human being are naturally interdependent. While there is still lack of opportunities for participation in shaping societies institution and there is the failure to meet common social needs through an equal distribution of resources (Stevenson, 1999).

Mass media become an important source of public culture for the whole society in shaping public opinion by its leading force. Through the wide verities of the programmes they have effect on all members of society and deals with challenges to culture through different sources such as printed, additive, and visual and combination of both audio and visual mediums (Carlson and tayie, 2008). Enormous number of audience can be reached directly or indirectly by mass media. Its usage depends to the preference of audience for example: in rural areas even though people have access to the news paper or magazines they do not read it regularly because they do not have sufficient time or they do not have habit of reading or they are not able to understand it. This cause a limitation to its use, hence the additive and visual media are easy to be understood and are available for various audiences. Similarly, the usage of radio in the area is less even though they have access to it but they ever hardly listen to it due to their preference to TV channels or different time demands which does not suit the listener and it tuned to the working time of the listeners (Leeuwis, 2004).

2.5. Radio

“Radio as a communication medium plays an important role in the nation’s social-cultural, political and economic development. It has the unique advantage of being receivable through low cost, battery operated, and mobile receiving sets, affordable for almost everyone, even in the rural areas. With appropriate strategies, radio can expand its reach to sparsely populated areas and remote corners of the country (Gandhi, 2008, P: 101)”. Radio is a medium for communication to a large number of people at very low cost, it helps people in building adequate knowledge and skills, changing their attitude and reinforce learning by creating general awareness among people.

“Radio is an electronic audio-medium for broadcasting programmes to the audience. This medium is cosmopolite in approach and is suitable for communication to millions of people widely dispersed and situated in remote areas. Availability of low cost transistor sets has helped radio to penetrate deep into the rural life”, (Ray, 1999 P: 110).

The radio stations are categorized in 3 types:

1. *Public radio:* This type of radio is owned by the government. Its aim is to reach general public in the way that government wants.
2. *Private radio:* This radio is individual or companies owned radio. Its aim is doing business and making money.
3. *Community radio:* Community radio or local radio is owned by the community members. Its aim is taking part in the development of community and offer voices to those without voices to rural communities and to marginalized groups (NIAEM, 2007). The community radio serves to bring small communities together; it aims to contribute to the lives of local community by helping in realizing local aspirations and focusing on the local people concerns by creation of content. The community radio focuses on various services which produce such programmes that innovatively done to sustain the listeners' interests and needs like, education, rural and community development, health environment and agriculture programmes (Gandhi, 2008).

2.6. Radio and development

In spite of the general accepted notion that radio is an effective source for development programs; however TV channels, cables and satellites fulfilled the entertainment need of audience, but have left a big space between people and development programs. Many authors, researchers and activists in India overseas that the radio with its low costs, access, reaches and portability, can be more effective than other media of communication (Fuller, 2007). According to Boone et al., (2000) farm radio is a strong tool of information for agriculturist. It is the most important medium for farmers to listen to it for different messages such as; farm commodity market reports, farm news, weather, entertainment and general information. This agricultural news and market coverage is acclaimed by service of agricultural radio networks that varies in size and number of station members but provides a decisive source of agricultural news and market information. They usually listen to the radio in the morning and noon full attention to get advantage from the information. The combination of mass media and interpersonal communication is known as media forums that are more effective in reaching people with new ideas and introducing innovation by organized groups of individuals, who meet regularly to receive mass media programme and discuss its contents. This media forum developed in Canada amongst farm families and later on spread to Brazil, Costa Rica, Ghana, Malawai, Nigeria and India. In 1956 the MIBU sponsored the experiment of Radio Rural Forums. The forum has a chairperson, secretary and 12-20 members. The job of secretary is to writes the report in the forum to seek the answer for the queries, follow up of the action and keep records of the attendance. The duration of the radio program was 30-45 minutes on agriculture and related subjects each day broadcasted on All India Radio. The post broadcast discussions and their queries were being forwarded by expert or original broadcaster. Afterwards, the comparison about knowledge enhancement among peasants took place by Mathur and Neurath in 1959 in 3 types of Indian villages. Those in which radios were present without forums, those in which radio forums were established and those with neither a radio nor a forum. It was found that the farmers had a greater gain of knowledge of innovations in the

village where radio forums were organized than in control villages. The non forum, villages with radio showed very minor gain in knowledge. It resulted that the media have a great effects on individuals in less developed countries when these media are coupled with interpersonal and communication channels (Ray, 1999).

For development programs it is important that producers receive feedback from the audience in order to structure the program according their audience tastes, but only a few listeners who were educated and literate sent their views to be heard and this was the only way for the radio stations to receive audience response through these letters. In this case the messages were bound to fail. By contrast, the ORS (OOTy radio station) which was introduced in 1993 to Badagas Todas, Kurumbas, Irulas, Katos in the purpose of empowering tribal audience of the region was an effective and only community based radio. ORS considering the literacy and education level of the community produces agriculture information to the audience because agriculture is the main profession for many audiences. In this context Fuller referred to Joglekar 1996 argues that as far as radio is concerned, two way communications is essential for radio to be an effective developmental tool (Fuller, 2007).

In many countries agriculture is one of the pertinent sectors in so many countries which increases the economy status and reduces poverty problems of a nation. Country like Malaysia is a good example of its agriculture that doubled its efforts for the sustainability and success of agriculture sector by establishing number of agencies like DOA. DOA aired agriculture radio programs by public radio's every week. In 2009 DOA focused on Paddy plantation by producing drama series which was copied in to the CDS and distributed to the farmer. In 2010 DOA prepared 9 slots, each for 20 minutes to inform the public about recent technologies and products, and it was successful to reach farmers by broadcasting ARP and to enhance the agricultural knowledge of the farmers (Hassan, 2010).

Radio contributes to the development of rural areas by involving people with the medium and dealing with immediate concern to the audience. The responsible persons of the radio broadcast to a group or audience needs to make them aware about the existence of the programs for them and it motivates people to listen to the programs carefully. Radio is an effective tool of learning and communication particularly for those who cannot read and write and lives in remote areas. Therefore the messages of the radio programs need to be clear and simple that people could be able to understand it well without any lost (NAIEM, 2007). Learning is a continuous process which should not be disrupted. The modern innovations should be incorporated with indigenous knowledge because it will prove to be effective. It is also considered important that the new knowledge integrate with previous knowledge. Thus skill development of farmers through participation in the learning process is essential in order to get best results (Zaidi, 2005). Farmers need to be educated and informed about improved agricultural practice to enable them increase their income and productivity. The required amount of information and learning depends to the use of mass medium which can provide information at different times, geographical constraints, population and shortage of EW. All experts' identify radio to be the most appropriate mass medium that rural population is familiar with because it transcends the illiteracy barriers and requires less intellectual exertion than print media and the demand for its usage is also higher than other mediums (Okwu et al., 2007).

2.7. Conclusion

In this study communication is seen as a participatory process which is essential for behaviour change. Development communication is the process of empowering people such as voiceless, marginalized and rural women through giving them a chance to raise their voices and to contribute in the development process. It also needs to be defined to bring effective social change in the live of people because communication has become a key feature of development. Media become more important in the process of communication for rural development. It can play a vital role in providing information to people through its enormous reach to a huge number of people and it support and enhance communication amongst people and it gives them a voice that permits them to contribute to the development process.

Radio has the potential to be an effective mass media which is relatively cheap and can be a strong tool of information for agriculturist. It can be a most important medium for farmers to listen to it for farm commodity market reports, farm news, weather, entertainment and general information. It supports people in building adequate knowledge and skills, changing their attitude and reinforces learning by creating general awareness among people.

Based on the potential of development communication and radio in particular this study aims to answer the following research question:

What is the potential of agricultural radio programs in enhancing Afghan female farmers' agricultural knowledge?

To answer the main research question, the sub-research questions that needs to be explored, are:

- ✓ To what extent agricultural radio programs contributes to the knowledge enhancement of female farmers?
- ✓ How is the accessibility of agricultural radio programs to Afghan female farmers?
- ✓ How do female farmers apply the message of the radio in their daily life?
- ✓ To what extent female farmers share the radio messages among other farmers/each other?
- ✓ What type of media communication do female farmers prefer?

3. The research project

This chapter outlines the research which includes the presentation of the research methodology and an introduction to the research area.

3.1. Methodology

The research project started with reviewing literatures according to the research topic. Before going to the field it was necessary to have information about the study area. Prior to the primary data collection through survey questionnaire method and group discussions the researcher conducted several meetings with HLP Key staff in order to know about their radio broadcasts, to get clearance about research area, to have more information about HLP activities in relation with communication and media programs and also to interview the ICC of HLP. Also several meeting were held with HLP Monitoring and Evaluation head to have his perception according research questionnaire and to introduce the research project to HLP due to its importance for HLP future communication activities to female farmers. The survey questionnaire was used in this study. It had both closed and open ended semi structured questions. Two sets of questionnaires were prepared and used for this study. One set for farmers and another set for HLP ICC. The researcher did the survey by her own self and interviewed (30) female farmers individually. All together (32) questionnaires were used for survey and (34) used for radio producer/ICC. Pre-testing of the questionnaires was done in order to assess the reality of the research questions and also it was shown to some key staff of MAIL in order to get their feedback in relation with the questionnaire. Besides having interview with ICC of HLP and female farmers the researcher also had some interaction with extension workers and whenever needed she ask some open questions from them as well, in order to get the clear picture of the current situation of female farmers in Aybak district of Samangan Province. The interviews focused on information about HLP agricultural radio programs in relation of communication source in regard with content of the program, audience and message, accessibility of the radio programs regarding audience listenership, perception of audience in relevancy of the radio messages to famers need and sharing of the messages between farmers and other media interventions. The first day of field work (interviewing female farmers) were really hard to do because the researcher was quite nervous about the questionnaire and the perception of female farmers to the research topic and importance of ARP. However, the rest of the days except the first day it was normal to have contact with farmers and fortunately they were really keen to answer the questions and give more information. When the questionnaire was about to finish the farmers wanted it to be continue and the research was encouraging them to listen to the ARP as they shared their feelings and interests to the ARP with the researcher.

The researcher personal observation was also used in this project. The researcher experienced ARP in a group wise, the listening of the ARP was to observe female farmers perception and idea about listening the ARP in the group of female farmers which were consist of more than 15 female farmers. She also listened to the ARP with one of female headed households in the group individually. The group listening method and individually listening method were compared with each other by the researcher. Secondary sources collected by the researcher during a desk study. Ministry and Departmental guidelines were consulted when necessary. Search of information on the relevant subjects in the internet, books, articles, journals and Ministry report on Media, communication and radio was studied. Organizational and personal contact with extension officers of HLP in "Aybak" district were contducted for information. Valuable

guidelines and suggestions of experienced persons were also used. The data was analyzed and interpreted by using statistical tools such as graphs, frequency counts and using graphical interpretations by using excel software. When the interview period finished the researcher started data analysis. The summary of the field work were written and then all the questions within their answers entered in the excel sheets and then for each answer including descriptive questions frequency counting method was used and showed all the results in percentage in tables and different charts.

3.2. A personal perspective

Implementing research in a rural area where the transportation facility is not available in the villages and where always the tension of security is present, makes it for the researcher is quite challenging to conduct research in such area. The security situation in Samangan province compared to other provinces of Afghanistan is in better condition, however going to such far places for an Afghan girl is not an easy task. She had to face many obstacles in doing research. First of all for an Afghan lady it was not possible to go alone in a far area of the country due to cultural constraints and security situation, she had to go with a family member. The second thing is that she was very worried about her own security in the research area because there was no accommodation facility to survive, so she chose the Balkh province for accommodation. It was taking time each day to come from one province to another province and going back was also not an easy task because she had to leave the research area before the day gets dark and she had to come back there in the dawn. The Samangan province is eighty minutes far from Balkh province by local cars or all- terrain vehicles. Going out from one village to another village was not an easy task due to lack of transportation in the villages of Samangan, people have to walk from their village to the town for their daily needs every day which is really harmful for them in the hot weather.

It is worth to be mentioned that carrying out research in a rural area or remote villages was the first experience for the researcher to carry out because she had to know about culture of the villages and particularly the way they were wearing clothes were different from the researcher's clothing. Women of the study area used to wear Chadari (Burqa) in the villages and they were not allowed to speak with any male resident of the district because he is called Namahram¹ to them, however the researcher did not wear Burqa but she used to wear such clothes which to be appreciated by women. The implementation of the field study was carried out during Ramadhan Holy month of all Muslims. On that month all Muslims fasts for 30 days and doing work during month of Ramadhan is difficult in hot weather. Farmers used to work on their field early in the morning until afternoon in this Holy month. This issue took the time of the researcher which was earlier planned; she had to consider these issues because farmers were not answering to any question in the afternoon because on that time they were engaged in cooking and preparing food for the breaking of the fast, so the researcher had to meet them in the morning.

In the earlier stages of the research project it was aimed to carry out the research project in "Khulm" district of Balkh province. Due to lack of technical assistance and of broadcast

¹ A person who is not a family member

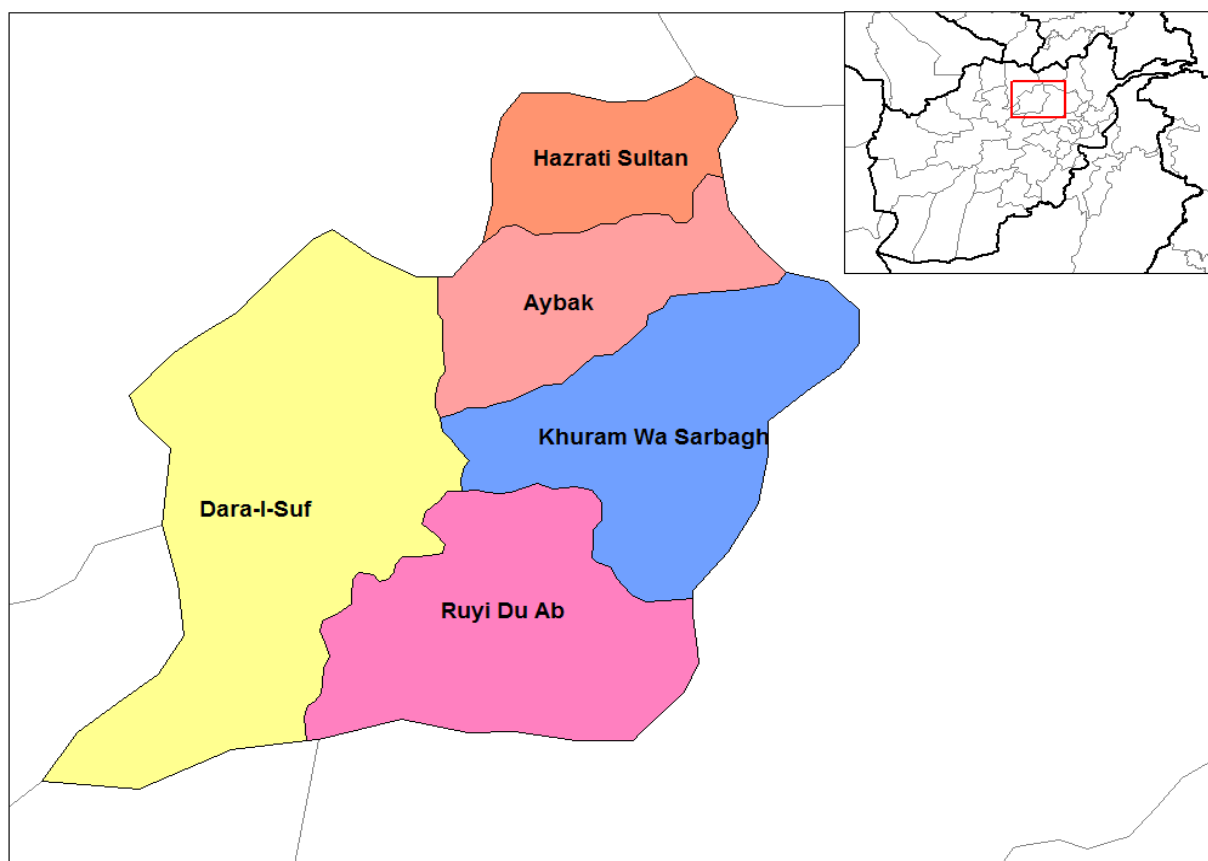
problems between HLP and local radio station the study area has been changed to “Aybak” district of Samangan province. Samangan province is one of the HLP agricultural radio broadcasting areas. It is also a province where female farmers are active in agricultural activities, hence the researcher carried out the research in this area. However, when choosing another province for the researcher was not an easy task, it took two days in the Khulm to know about the broadcasting situation, after contacting the local radio station of Khulm she found that they had started broadcasting radio programs with that local radio station recently and then she went to the villages of Khulm to make sure about the listenership of female farmers, but she realized that there were no broadcasting even the farmers were surprised of listening to the ARP of HLP, means that they did not have any idea about the broadcasting of HLP radio programs. Therefore after two days observation the study area changed to Samangan province which was far from Khulm. The travel duration from Kabul (researcher home) to Mazar-e-Sharif capital of Balkh province took 2 days, over all the researcher spent (17) days in the field for data collection. The villages studied in this project were six villages of Aybak district of Samangan province these villages were: Chawghai, Joy Zindan, Sayed Abdul Qader Agha, Khwaja Ghayeb, Khwaja Ismail and Aakh Mazar. The category of analysis was female farmers. Simple random sampling was conducted, from each village 5 female farmers were selected for taking their interview and were from HLP female farmers’ producer groups and totaly 30 female farmers were interviewed. These female farmers were involved both in Horticulture and Livestock activities.

3.3. Study area

Afghanistan is a land locked country located in central Asia, north and west of Pakistan, east of Iran, south of Turkmenistan, Uzbekistan and Tajikistan. The Narrow Wakhan Corridor extends from north-eastern most Afghanistan meet with China. Afghanistan occupies approximately 647,500 square kilometres, slightly less than Texas. Afghanistan has 34 provinces and Kabul city is the capital city of the country. In Afghanistan more than 30 languages are spoken. The official languages are Dari and Pashtu. Dari is spoken by 50 percent and Pashtu is spoken by 35 percent and Turki and Uzbek are spoken by 11 percent of the population. The most important languages which are spoken by smaller segment of the population are: Pashai and Balochi (Larrison, 2008).

Samangan province is one of the North provinces of Afghanistan which is located in the North East of central area of the country. Aybak city is the capital of Samangan which is also known by the name of Samangan. Samangan has 378,000 people population and covers an area of 11,262 square meters. (Memon, 2006) Samangan borders in the east by Baghlan province, in South Bamyān, in the South West Sare pul and in the West and North Balkh province. Four fifth of the province is mountainous and 12% of the area is made up of flat lands. There are 47799 households in the province. The province is divided into 7 districts. Around 7% of the population of Samangan lives in urban area while 93% of the population lives in rural areas. The first most frequent language spoken is Dari by more than 72.5% and 22.1% of the 144 villages speak Uzbeki. The major ethnic groups living in Samangan are Tajiks, Uzbek and Hazara, 49% is female and 51% is male population (SPDP, n,d).

Figure 2: Map of Samangan Province



Source: www.MetaGini.com

In Samangan province only 7% of the household have access to safe drinking water. Nearly 71% of the household has direct access to safe potable water; however 21% of them has to travel for having access to safe drinking water about one hour. The electricity in Samangan province is not developed very well; only 5% of the households in Samangan have access to electricity (Samangan Provincial Development Plan). Samangan has potential for business in the light engineering and warehousing sector, but the lack of energy is slowing down the substantial development of local enterprises. Samangan is also known for its historical sites that attracts tourist visiting Mazar-e-sharif from Kabul, however the tourist infrastructures need to be developed (Larsson, 2008). Samangan is part of the northern cluster of higher education facility in Afghanistan, however itself has no note worthy education facility and the literacy rate in rural areas is higher. Nearly in Samangan province 28 percent of men and one tenth of women are literate; generally the overall literacy rate is 19%. Overall there are 159 primary and secondary schools in the province which are mostly 83% boys schools (RRERS,n.d).

Number of illiterate women in Samangan are 75,000. Women before age of 18 get married which is estimated 49 percent. Maternal mortality ratio per year is 278 (Larsson, 2008). Agriculture is the engine of growth and can contribute to poverty reduction at the farm rural sector in national levels. Agriculture is the major source of livelihood in Samangan. Around 36% of households in the province are involved in agriculture. Seventy percent of the rural communities produce cotton, tobacco and sesame in Aybak district. The most important field crops grown in Samangan province include barley, flax, potato and wheat. In livestock commonly people own goats, donkey, sheep and chicken (SPDP, n,d).

The majority of people in the province are engaged in cultivation of wheat, maize, rice and had animal husbandry. It is one of the famous provinces of Afghanistan known for the cultivation of almond. In the past almond was an important source of income for the province, but the neighbour countries buy almond in low prices and sell it with high prices and make most benefit from it. In samangan opium cultivation is also done by farmers and is in the levels of drug use in line with the national average (RRERS,n.d). In Samangan wheat cultivation is also common. High staple prices of wheat have become the largest food security concern in some provinces of Afghanistan such as Samangan likely to be food insecure due to its dominant dependence of livelihoods on small scale irrigated agriculture that cannot meet the consumption need of the households. The poor harvest for rain-fed crops in Samangan province where livelihoods are predominantly raising livestock and rain fed agriculture has increased demand for wheat imports from other countries. Samangan province in the North due to lack of off-farm economic opportunities and its reliance on rain fed agriculture caused crop losses and water shortages. The direct impact of the drought affects Samangan agriculture which will decrease every year its production and the prices of cereal be higher leading to increased food insecurity. This problem presents the real threats of population displacement and acute morbidity in the Northern provinces (FewNet, 2006).

The livestock and Horticulture sector are the major economic importance to Afghanistan that provides many constituents of the diet and a source of income for more than 80% of the population. Women are involved in both sectors in rural Afghanistan in many production and income generating activities which contribute to the overall household income. Female headed household supports their family sufficiently in the respect of their income. There are very few women who own lands and farms and their income generating compared to men are very in low level. (AREU, 2004). Women comprise 60% of Afghanistan's population and a major portion of the agriculture force, which is remarkable and their participation is rewarded because they have always been struggling alone to support their families (GPFA, 2010). However, the majority of Afghan women are involved in agriculture but they have always been ignored by the society in comparison with men, as it could be seen that there is really a few data in the internet or some books about Afghan female farmers and their agricultural activities because they have not been seen as a potent part in Agriculture and they have been overlooked. The researcher could not find the particular data especially about Afghan female farmers' agricultural activities and particularly the Samangan province female farmers in the respect of socio cultural contexts (RRERS,n.d).

4. Results

This chapter presents the findings of the research that result from the field work. Firstly the agricultural radio programs of HLP are presented. Secondly the general information about the Afghan female farmers and their households is presented and also it describes the current status and role of agricultural radio programs in the enhancement of afghan female farmers' agricultural knowledge in Aybak district of Samangan province.

4.1. HLP Agricultural radio programs

The Horticulture and Livestock project (HLP) is the first World Bank funded comprehensive agricultural development project of the Ministry of Agriculture, Irrigation and Livestock (MAIL) implemented since the 2006. The project aims to at sustainable increase in production and productivity of perennial horticulture and Livestock and producers, income by the promotion of improved production and marketing practices for private investments and by strengthening institutional capacity in agriculture (HLP, 2009).

HLP started the broadcast of agricultural radio programs since 2009 in 11 HLP focused provinces, but due to first experience of broadcasting agricultural radio programs its broadcasting was not satisfactory or not being paid full attention. On the contrary it started its broadcast with full focus on the agricultural programs regularly since 2011. HLP started the broadcasting of agricultural radio programs with support of radio Nawa along with local Radio Stations in 2011. The programs broadcasting is per two weeks one program is aired one week in Dari and another week in Pashto translation, and per month it airs 2 programs with almost drama feature, which helps farmers to get the agricultural instructions well and drop it into their daily works (HLP Radio report, 2011). The content of the program sends to the Aaina production for the recording and then after checking by information and communication staff of HLP it sends to Radio Nawa and then radio Nawa distributes it to HLP focused provinces through local radio stations.

In Samangan same like other provinces the radio programs are broadcast per month four programs; two Dari and two Pashto, one week Dari and One week Pashto in the evening for 15 minutes via Haqiqat local radio station and once a week they airs the repeat telecast of the programs. These programs are divided in three parts the first part gives general information about the related topic, the second part interviews with an expert and the third part is both entertainment and information source by producing drama. The program starts with giving general information about the specific topic and the announcer is a male or female than they interview an expert to give further information about the certain issue and in the last for 6 or 7 minutes it continuous with drama. Drama is a kind of role play that the actors play roles of farmers and then another expert like extension worker comes to the field or their home and repeats what the expert said about the topic. The understanding of drama language is much easier than understanding the technical words of the doctor. According to ICC of HLP people likes it very much because it shows the reality of their life and beside that it entertains them.

The researcher listened to 2 radio programs one with a group of female farmers and another individually with one farmer. As it was seen that the appearance of women in the program were very less and only in one program they were appeared and the other programs were really male dominant and it was seemed that these programs were made only for male farmers not female farmers. Also from some radio programs it seems that these programs are divided to men and women tasks. Like in poultry program females appearance were remarkable and in Brucellosis

program the expert were a women who gave information about that diseases, but other programs were male dominant like pruning, sapling, irrigation and marketing. The programs that HLP covered until now are: Poultry, Saplings, Pruning, Irrigation, Marketing, brucellosis. It could be said that the amount of the programs which HLP aired until present is very less in the context of enhancing farmers' agricultural knowledge. The researcher listened to two radio programs; poultry with a group of farmers from Chaughai village and pruning with an individual farmer from Aakh Mazar village. The poultry program started with giving general information about Mirbacha Kot village of Kabul province and started interviewing with female farmers of that village regarding the chicken raising, vaccination and the marketing of the chicken. The second part of the program was an interview with a Vet and the farmers asked their questions which were recorded before and the Vet gave answer to their questions. The program ended with drama section. The drams were about a husband and wife who were discussing to have poultry farm at their home and they got information about the chicken vaccination. This program besides of motivating farmers to have poultry farms, were giving information about chicken diseases and its vaccination.

The aim of HLP on airing ARP is to raise awareness of farmers on agricultural practice, introduce standard farming methods, mobilize farmers to certain farming activities according to the seasonal calendar and inform farmers about the new initiative taken by the project to increase production and productivity both in livestock and horticulture sectors.

4.2. General information about farmers

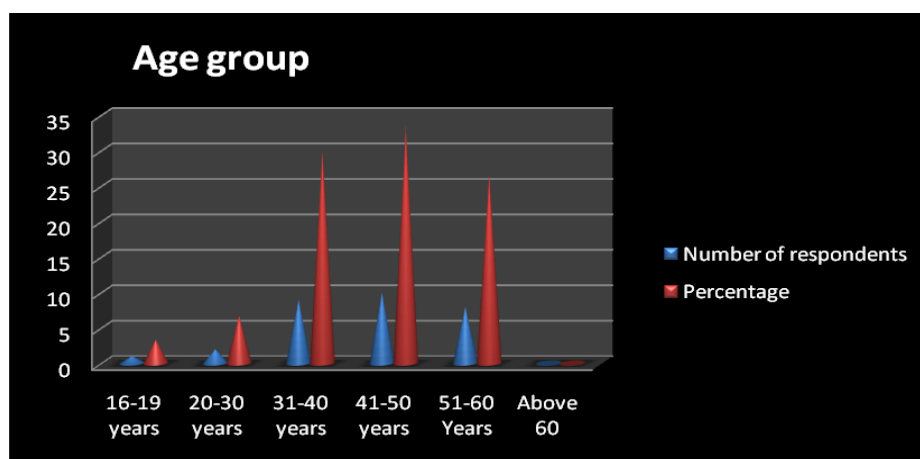
4.2.1. Age of respondents

The age distribution of respondents is contained in figure 3 and 3 percent of the farmers were in the age bracket of 16 to 19 years; 7% were between 20 to 30 years, 30% were between 31 to 40 years, 33% were 41 to 50 years and 27% fell between 51 to 60 years. Majority of the respondents were found in the age brackets of 31 to 40, 41 to 50 and 51 to 60 years. The result shows that most of the respondents fell within the active age of working in agriculture because age factor is important in accessibility and utilization of agricultural information and it will be easier for them to understand the information broadcasted in the radio but still 27% for the age of 51 to 60 years is countable for higher age for agricultural information. It seems that only one female farmer was in the age of 16 to 19 and two were in the age of 20 to 30 years. The minority of young farmers are also considered less for agricultural information because young farmers are more responsive and active to new practices and ideas than older farmers while older farmers are passive or less responsive.

Farmers within the age of 31 to 40 years, 41 to 50 years and 51 to 60 years responded that they are not working alone on their farms or lands, their daughters help them in the cultivation and their son help them outside house chores like they sell the crops to the market because most of female farmers were not allowed to sell the crops to the market due to cultural restricts. While asking the question from a farmer about why she does not sell her crops to the market by her own self she replied: *"First of all I am not allowed to go out and sell the crops to the market, my husband do not let me to go there, I only go to the market whenever I need anything which is very important or urgent and my husband or son are not around home. Second if I have somebody at home to sell my products outside there is no need for me to go by my own self and I am very happy for that. Whatever I earn my husband spends it on our household consumption"*. While discussing this issue with another farmer she replied that *"until now I have*

not seen the market, whatever I need, I ask my husband to bring it for me otherwise I wait for my son to go to the market and bring it for me."From both statements it could be seen that farmers are not allowed to go to the market by their own selves. They do not have access to the market and whatever they earn their husbands have control on that and they are not familiar with outside environment. Those farmers who were widow or did not have any one to sell their products, they were selling their crops by their own selves and they were seemed much active and had varieties of information about markets.

Figure 3: Interviewed Farmer's Age Group



4.2.2. Educational level

The study indicates that 6% of farmers were able to only read and 7% of them were able to read and write while majority (87%) of them were illiterate. The result shows that generally female farmers are illiterate they cannot read and write and those who can read and write have secondary education only. Two farmers were able to read only they answered that in childhood they attended Madrasa² so they could only read but cannot write. The other two who were able to read and write, they both attended school until class 11th and one of them were still in school. The high rank of literacy level affects their comprehension, access and interest in listening of radio, practice of the messages and enhancing their agricultural knowledge. The comparison between female farmers and male farmers in figure 4 and 5 shows that, 57% of male farmers were not able to read and write. Whereas 13% of them could read only and 30% could read and write. The result shows that the literacy level of men is much better than women because the illiteracy level of men were 57% and women were 87% which is a big difference between both figures. It shows that men had access to education while women did not.

Figure 4: Farmers Literacy Level

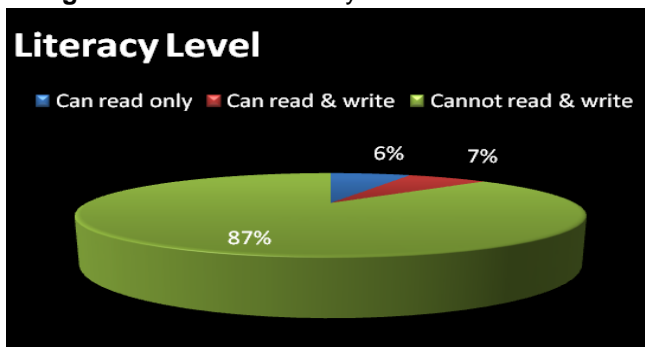
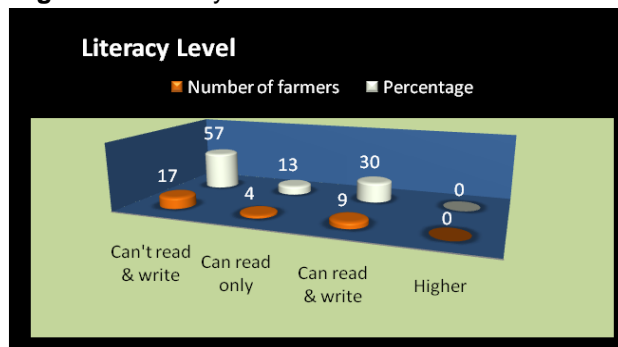


Figure 5: Literacy Level of Male Farmers



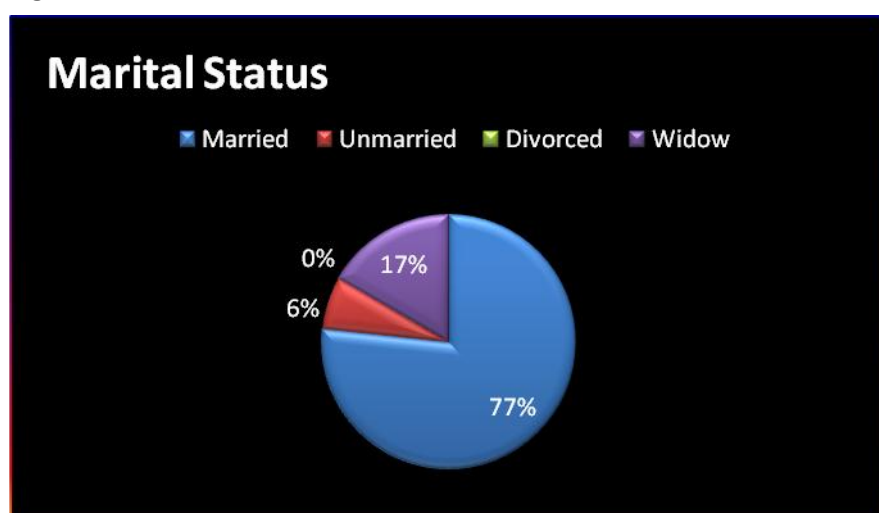
Source: Shah Pour, master thesis, 2011

² Madrasa is the place where only religious books are being thought

4.2.3. Marital status and family information

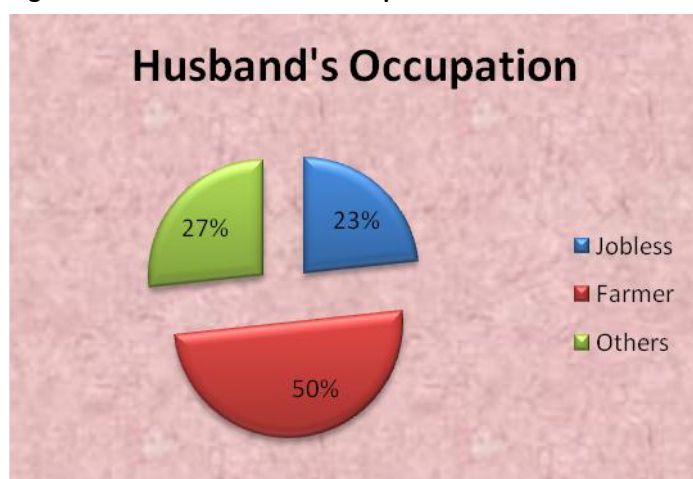
About 77% of the farmers were married at the time of the study while 6% of them were single and 17% of them were widow. The majority of farmers were married and had joint family, their family members were more than 6 and 7 people. Their family members were really large in amount. They realized the importance of education as they said that they send their children to schools because they do not want their children to be illiterate like them. Zulfia from Joyzindan village shared her idea and said: *“Now I am illiterate I cannot read and write if I could then I would be able to teach school students and read the books, but I do not want my children to become illiterate like me, I pay attention to their studies and I want them to have best education and beside that they should continue our agriculture work too as they help me in the farm work.”* This statement shows the interest of illiterate women to education and it shows her keen interest to her children education. Farmers who are married despite having farm work and land work they do the house chores as well and the load of the work is really high on them as their husbands do not have housework they only do outside home chores.

Figure 6: Farmers Marital Status



Half of the respondents' husband's occupation was farming while 23% of them were jobless and the rest had other activities as it is shown in figure 7. Those who had farms they helped their wives in the land or farms as well, as a farmer from Chawghai village narrated: *“My husband is very expert in farm activities whenever I have any question I ask my husband and he helps me in the farm work always.”* Those who were jobless they did not have any occupation even they did not help their wives in the farm or land they had just sell the crops to the market and the rest were not even in agriculture and not jobless they were involved in other occupations like, teaching, cleaning, carpentering and etc.

Figure 7: Farmers Husband's Occupation



All female farmers had poultry farms beside of having land. It is worth to be mentioned that most of them did not have their own land, the land belong to their husbands. Majority of farmers cultivated almond, apricot, tomato, onion, spinach, pomegranate, and wheat and the rest had cow, goat and sheep farms. HLP distributed to them some layer chicken in order to have an extra income beside of their own agricultural activity. The farmers sold the eggs to their neighbours or use it for their daily use and some of them who did not have a large family they sold it in to the market, but most of them used it for their own household consumption. Those who had livestock were doing the dairy and sell it to the market or to the neighbours and some of them who had financial crisis they sold their stocks to the market. Many of them said that they had water shortage and due to that they could not have sufficient income whatever they cultivate. Like almond they do not have enough water to cultivate it and as a result their crops get dry and do not earn enough money to survive so they do the handicraft task and sew handmade clothes in order to earn money. Female farmers did not have control over their resources and they were not able to mention about their monthly income because many of them said that their husbands know about it better, they only do what they have to do.

4.3. Accessibility to agricultural radio programs

4.3.1. Radio ownership by farmers

The ownership of a radio set by farmers at home or individually is important for physical availability of the medium and access of farmers to agricultural radio programs. The majority of the respondents had access to radio programs in the study areas. Table 1 shows that 87% of the farmers had radio sets at home, while 13% did not. MAIL do not make sure that whether farmers have radio sets or not, they assume that farmers have radio sets at home even they have not distributed radio sets to the producer groups or extension workers. Those farmers who had radio sets they said that they did not own the radio and it belongs to the whole family and sometimes it prevents them from listening to their own radio programs.

Table 1: Farmers Radio Sets Ownership

SN		YES		NO		Yes I have electricity				What do you need to run the radio?			
		[N] (n=30)	[%]	[N] (n=30)	[%]	24 hours		For some Hours		Electricity		Battray	
						[N] (n=19)	[%]	[N] (n=19)	[%]	[N] (n=26)	[%]	[N] (n=26)	[%]
1	Do you have electricity at home?	19	63	11	37	19	100	0	0				
2	Do you have radio at home?	26	87	4	13					18	69	8	31
3	Do you know about agricultural program aired in radio?	24	80	6	20								

4.3.2. Listener-ship of agricultural programs on radio Haqiqat

To listen to the ARP it needs to know about the programs. The result in the table 1 shows that 80% of farmers know about the ARP and the rest 20% are not aware of the programs. To find out the listenership of ARP, the respondents were asked to point out that whether they listen to the agricultural radio programs or did not. Majority of the farmers (60%) indicate to listen to radio Haqiqat Agricultural programmes, whereas the remaining 40% of them did not listen to these programs. The result shows that a good range of the farmers had access to the agricultural radio programs aired by radio Haqiqat. Mean while 40% of them who did not listen to the programs are considered important. Their reasons given for not listening to these programs were: lack of awareness (25%) High cost of radio (8%), language problems (19%) and both lack of awareness and high cost of the radio (8%) which is shown in table 2.

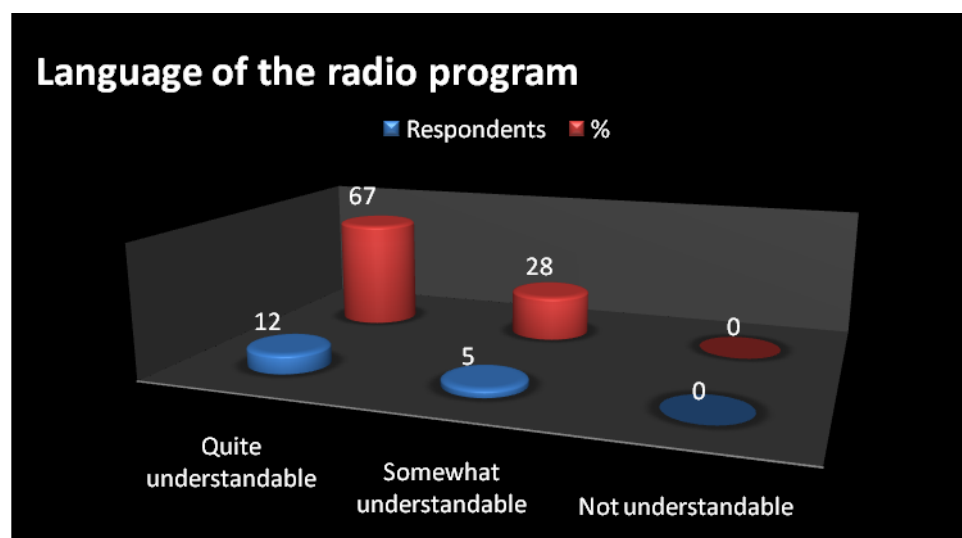
Those who listened to the programs got to know about the programs from extension workers (94%) and their husbands (6%) which is also shown in table 2. Those who did not understand the language of the programs speak Uzbaki, two of them were from the village of Joy Zindan and the rest were from the village of Sayed Abdul Qader Agha. The local language of the village of Sayed Abdul Qader Agha is Uzbaki which needs to be taken in account. HLP only broadcast the programmes in two languages which are national languages in the country. The ICC pointed out that if they would know that their beneficiaries speak other language as Dari and Pasto they would broadcast the program on that particular language, it shows that HLP does not have full information about their target beneficiaries.

Table 2: Farmers Listenership to ARP

Do you listen the agriculture program aired in radio?	YES		NO		Yes, I listen & I know about the program from				No, I don't listen [Why]							
	[N] (n=30)	[%]	[N] (n=30)	[%]	Extension Worker		Husband & Extension worker		Not aware of the program		High cost of radio		language barrier		Lack of awareness + High cost of radio)	
					[N] (n=18)	[%]	[N] (n=18)	[%]	[N] (n=12)	[%]	[N] (n=12)	[%]	[N] (n=12)	[%]	[N] (n=12)	[%]
	18	60	12	40	17	94	1	6	3	25	2	8	5	19	2	8

Respondents indicated about their language problem too. They said that in the interviewing part of the program the experts use technical words which is not understandable for them, and also from the observation of the researcher it is also seen that in the programs the technical words are not only used in the interviews even in the drama which believes to be easier for the rural people to understand and also sometimes some invaluable words are also used. Whatever the experts say in the interview in the drama it is repeated. Within 15 minutes the load of given information is high in number which makes the audience not to understand well and they speaks really fast in the programs according researcher's observation. Figure 8 shows the result.

Figure 8: ARP Language



4.3.3. The listener-ship frequency of respondents to agricultural radio programs

The study reveals that the number of times farmers listened to the radio agricultural programs which is shown in table 3.

Majority of farmers have been listening to these programs from last one year which is 89% and the rest 11% of them had started listening to it since recently. On the contrary 40% of them have never listened to the agricultural radio programs of radio Haqiqat. Those who listen to the program always they know about the airing time of the programs and they do not miss it but those who listen often or occasionally they say that on that time they are busy in cooking or their children or husband listen to other programs so they can not listen to the ARP regularly.

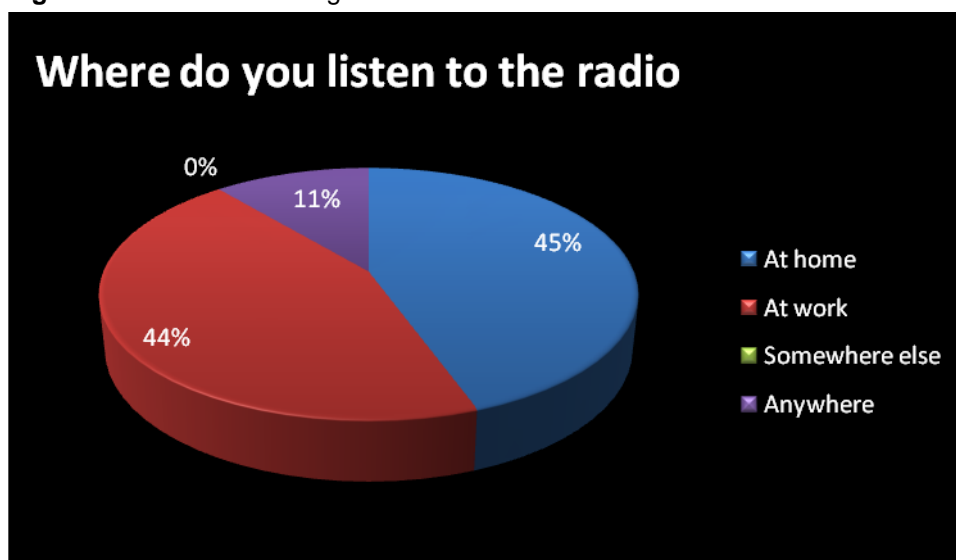
Table 3: Farmers Access to ARP

SN		YES		NO		Always		Often time		Occasionally		From the last two years		From the last one year		Since recently	
		[N] (n=30)	[%]	[N] (n=30)	[%]	[N] (n=18)	[%]	[N] (n=18)	[%]	[N] (n=18)	[%]	[N] (n=18)	[%]	[N] (n=18)	[%]	[N] (n=18)	[%]
1	Do you have time to listen to the radio?	18	60	12	40												
2	How often do you listen to the agricultural program in the radio?					12	67	4	22	2	11						
3	For how long have you been listening to the agricultural program?											0	0	16	89	2	11

4.3.4. The radio airing time suitability

Figure 9 shows that those who listen to the agricultural programs tend to be whether at home is 45%, at work is 44% and anywhere else is 11%. Farmers do listen to ARP wherever they would be. The majority of them replied that if they will be at home or in the kitchen or on farm work they tend to listen to these programs always and here At work means house work not farm or land work because in the evening farmers do not do agricultural activities.

Figure 9: Farmers Listening Areas



The table 4 indicates the suitability of the agricultural radio programs aired in the radio. The findings shows that airtime of agricultural radio programs were suitable for 61% of the respondents to the remaining 39% it was not suitable for them they tend to be busy with their house chores, hence 86% of them suggested the airing time late in the evening. A farmer that the airing time was not suitable to her narrated that: “ *At that time I am busy in cooking and the radio set is at home I cannot concentrate on the content of the program well, but if the program broadcasts late in the evening I will be free from work and I can concentrate.*”

Table 4: ARP Airing Time Suitability

Does the airing time suit you?	YES		NO		If NO, what is the best airing time for you?											
					Early in the morning		Late in the morning		Before noon		Afternoon		Evening		Late in the evening	
	[N] (n=18)	[%]	[N] (n=18)	[%]	[N] (n=18)	[%]	[N] (n=18)	[%]	[N] (n=18)	[%]	[N] (n=18)	[%]	[N] (n=18)	[%]	[N] (n=18)	[%]
	11	61	7	39	1	14	0	0	0	0	0	0	0	0	6	86

Majority of the farmers mentioned that the airing time of ARP is less in account. They cannot learn effectively by broadcasting of only 2 programs per month.

4.4. Perception and Evaluation

This paragraph describes the research findings regarding the perception and evaluation of the content of the agricultural radio programs by respondents.

To most of the respondents the content of the program were interesting and they were keen to listen to these programs. Table 5 shows that for the majority of respondents the drama part of the program was very interesting as they found it very useful, but for the rest the interview part was interesnig. . For most 61% of the respondents the duration of the program was a bit short for the rest 39% of them was adequate as it is shown in table 5. The result indicates that farmers have interest on Agricultural dramas and they found it entertaining. Regarding dramas HLP has chosen a proper way of giving agricultural messages to farmers due to low literacy level of farmers, also in dramas the language of the program is easier and understandable to the farmers and on the other hand it is very easy to translate the technical information into dramas.

Table 5: Farmers Appreciation to ARP

SN		Just adequate		A bit long		A bit short		The interviews		General info about the topic		Drama		Quite understandable		Somewhat understandable		Not understandable	
		[N] n=18	[%]	[N] n=18	[%]	[N] n=18	[%]	[N] n=18	[%]	[N] n=18	[%]	[N] n=18	[%]	[N] n=18	[%]	[N] n=18	[%]	[N] n=18	[%]
1	Is the duration of the agriculture program in radio adequate?	7	39	0	0	11	61												
2	Do you like these programs?							7	39	0	0	11	61						
3	What do you like in these programs?													12	67	5	28	0	0

Hanifa from Khwaja Ismail villages narrated *"I like all the content of the programs especially the drama part, but I do not see any women in dramas however only in two programs there were women in dramas and interviewing part but the rest they do not appear and also there is nothing new within one year all the programs are same"*. It means that the farmer wanted to listen to a lady and she wanted something new or different approach to receive the information. By listening to some programs it could be realized that the approach of the programs are the same, there is nothing new for the farmers to be entertained. Although those who listened to the ARP they found the drama much easier and useful because it is related to their daily life. Table 6 and 7 shows the ARP relevancy to farmers need.

Table 6: ARP Relevancy

S N		Interesting		Some what		Not Interestin		Useful		Somewhat Useful		Not Useful		Very Useful		Useful		Somewhat useful		Not useful	
		[N] n=18	[%]	[N] n=18	[%]	[N] n=18	[%]	[N] n=18	[%]	[N] n=18	[%]	[N] n=18	[%]	[N] n=18	[%]	[N] n=18	[%]	[N] n=18	[%]	[N] n=18	[%]
1	How do you find the agriculture drama program in radio?	18	100	0	0	0	0														
	How useful do you find the agriculture drama program in radio?							18	100	0	0	0	0								
2	On the whole how do you find agricultural radio programs aired through radio?													17	94	1	6	0	0	0	0

4.4.1. The relevance of agricultural radio programs

The responses of the listeners on the relevance of radio agricultural programmes to their daily needs are contained in table 7.

The result shows that 61% of the farmers indicated that programmes were relevant to their information needs; 39% indicated that the programmes were partially relevant, while no body found it irrelevant at all. Respondents replied that they are involved in both horticulture and livestock sectors so the programs are relevant to them and it is an opportunity for them to gain knowledge in both sectors. Generally the majority of the respondents found the programmes relevant to some extent and 11% of them found the given information complete, 83% found it somewhat complete whereas 6% of them found it not complete at all. Most of the farmers said that the number of the programs which is being aired in the radio is less. It is true that they understood the programs, but they want to have more information about the specific topic. A farmer said *“The programs do not have the follow up, within one program it finishes and in the next episode the radio do not repeat the previous programs for example: if they give us information in livestock sector another week they change the topic to horticulture sector and this make me to go to the vet or to the experts to have further information”*.

Table 7: ARP Information According Farmers Needs

SN		Relevant		Partially relevant		Not relevant		Complete		Somewhat complete		Not complete	
		[N] n=18	[%]	[N] n=18	[%]	[N] n=18	[%]	[N] n=18	[%]	[N] n=18	[%]	[N] n=18	[%]
1	Are the programs relevant to your daily needs?	11	61	7	39	0	0						
2	Do the programs give you complete information on agricultural activities							2	11	15	83	1	6

Table 8 shows the number of respondents that gained some knowledge about the various improved agricultural practices aired by Radio Haqiqat.

The programs made impact on the knowledge-gain level of the target audience. The listeners indicated the various improved practice they gained knowledge of and found very useful as a result of the ARP. Most of the respondents replied that they got the information from the radio, but by the help of their group leader, their husband or the expert they applied the message into practice. They could not apply it by their own selves. As a farmer said that for the vaccination of her stock after listening to the radio she went to the Vet and he suggested the medicine for her cows and after that she always apply it by her own self and do not need to ask any question from others. While sharing her experience she was very happy from radio programs.

Table 8: Farmers Learning Messages from ARP

Information/Messages learned from radio													
1		2		3		4		5		6		7	
Poultry		Pruning		Brucellosis		Planting		Irrigation		Sapling		Vaccination	
[N] n=18	[%]	[N] n=18	[%]	[N] n=18	[%]	[N] n=18	[%]	[N] n=18	[%]	[N] n=18	[%]	[N] n=18	[%]
7	39	9	50	6	33	2	11	3	17	7	39	4	22

Table 9 shows that farmers want the radio programs to be continued in the future. It is beneficial for them to get updated information and apply it in their daily lives. They indicated that if the programs continued their agricultural activities will improve through their learning from radio programs by giving agricultural information to them.

Table 9: Farmers Desire for Ongoing of the ARP

Do you want the ongoing radio program on agriculture to continue in the future?	YES		NO		If yes, why?					
	[N] (n=18)	[%]	[N] (n=18)	[%]	Work Improvemen		Learning Opportunity		Receiving Information	
					[N] (n=16)	[%]	[N] (n=16)	[%]	[N] (n=16)	[%]
	18	100	0	0	3	17	5	28	10	56

4.5. Sharing the ARP messages

In line with the literature review the research aimed to explore the impact of the radio programs beyond the individual audience and focus on collective social aspects of radio audience. While asking questions about sharing agricultural messages with other female farmers and their family the respondents replied that they are sharing the messages if not always but sometimes they do but their problem here was that they did not know how to share it and if they share it what benefits they get from sharing the messages. Table 10 shows that majority of them 31% share the messages always, 44% sometimes and 13% either often or seldom. Those who shared the programs they said that they share it with their family members or neighbours but those who shares sometimes or often, they said that their work prevents them to share the messages with their counter parts and also in their farming groups they are not asked to share the messages in their groups and even the EW also do not talk about it.

Table 10: Sharing of ARP Messages

Do you share the messages you received from the radio with your family members and other neighbour farmers?	YES		NO		If yes, How often do you share?							
	[N] (n=18)	[%]	[N] (n=18)	[%]	Always		Often		Sometimes		Seldom	
					[N] (n=16)	[%]	[N] (n=16)	[%]	[N] (n=16)	[%]	[N] (n=16)	[%]
	16	89	2	11	5	31	2	13	7	44	2	13

The farmers were very keen to give feedback about radio programs to the radio and share their ideas and experience with other farmers through radio. While asking them about having any question from radio producers or giving feedback to the radio for better improvement of the programs they replied negatively. The farmers indicated that there is no such procedure for them to establish any interactivity with the radio producers or broadcasters. It is shown in table 11. They indicated about their interest to have contact with them as they are keen to and solve their problems inspired by the radio programs.

Table 11: Farmers Contact to Radio Producer

Have you ever tried to contact the radio producer or relevant person in the radio programs to ask any question or give feedback?	Yes I did		No, I did not		I did not think of it		I don't know how to communicate with them	
	[N] (n=18)	[%]	[N] (n=18)	[%]	[N] (n=18)	[%]	[N] (n=18)	[%]
	0	0	8	44	3	17	7	39

The farmers were asked about solving their problems in regards with their activities they all replied that they have only one source to solve their problems and this is extension workers who are not always available for them. Some of them shared their last experience that when they really needed extension workers to help them and give them information the extension worker was not there and their animals died until the extension workers get contact with them. They also said that until the extension workers reach them they forget their questions and then they ask help of each other in their activities and usually the group leader, who is always available for them. While the researcher discussed this issue with extension workers they also agreed and said that they cannot always reach female farmers due to their busy schedule because each of them has responsibility of more than 20 groups and each group of farmers are consist of more than 30 members. Therefore they cannot solve farmers' problems on time, but they were hopeful about the ARP and its coverage to all farmers.

4.6. Media and Communication Intervention

Table 12 shows the availability of agricultural extension resources for female famers.

During the research the potential effect of combining mass media and communication with extension workers has been explored.

Meeting the EW beside radio programs is the only source for female farmers to get information related to their farming activities. Table 12 shows that Print media were not distributed to the farmers and from the observation nobody had pictorial messages at their homes. Regarding electronic media they also replied that there is no such medium available for them to increase their agricultural knowledge.

Table 12: Availability of Agricultural Information Resources to Farmers

What other resources are available for you to get related information according your activities?	Print Medai		Meeting the extension workers		Electronic Medai	
	[N] (n=30)	[%]	[N] (n=30)	[%]	[N] (n=30)	[%]
	0	0	30	100	0	0

According their preference about other kinds of medium 17% of them preferred meeting the extension workers, 13% TV programs, 3% print media while 67% of them preferred radio. Those who preferred TV programs indicated that their reason was watching. TV is an effective

medium to gain agricultural messages because beside listening they can watch it as well as they emphasized. Only one respondent preferred Print media and she was literate. Her reason for having printed materials was that she always can have access to it whenever she wants she can open it and read it but for other mediums she needs to fix the specific time. The rest who had desire to meet the extension workers timely due to having its experience and it do not cost them at all.

According the above mentioned mediums the radio producer/ ICC of HLP shared his ideas. He replied that until now they had never had any TV programs but in the future they have planned to telecast some extension messages in order to have a new experience of TV programs for the HLP. He had concern about TV programs as he mentioned that he assumes the TV programs are effective because farmers not only listen they can see it as well, but in Afghanistan TV has many weak points as well such as: its limited coverage, expensiveness, no access to electricity and its distraction of farmers to their agricultural activity because if they watch TV, farmers need to leave their farm work and it consumes working time of farmers. MAIL also consider print media as an effective way to enhance agricultural knowledge of farmers because by whenever farmers want can gain knowledge from it, but the problem is that farmers in Afghanistan are not able to read and write. The majority of the female farmers are illiterate, they do not understand written words, so they cannot use it for their agricultural activities it will be only a piece of paper for them. Therefore MAIL found radio as an effective communication tool to have contact with farmers which helps them to enhance their agricultural knowledge at anywhere and is an efficient medium to reach farmers at far distance areas due to its requirements for low literacy level, low cost and it's all the time accessibility to the famers.

4.7. Farmers' suggestion for additional extension messages

Farmers suggested that the number of the programs that the radio aired was very limited and it did not covered all messages which they really need to know about and improve their work. Their suggestions are: chicken feedings, temperature for chicken raising, irrigation, marketing, poultry production, income increase, saving boxes, grape cultivation and storing crops, pesticides, animal diseases and their vaccination, plant diseases, planting, sapling and dairy production. The respondents also suggested that the language of the program should not only be in two languages, the radio needs to consider other local languages as well. They asked about the extension of airing time and its duration as they said that within 15 minutes they cannot have full information and pay full attention and also the programs should have repeat telecast and per month listening to 2 programs do not satisfy their agricultural information needs. The radio producers need to air various agricultural messages to the farmers and it should give them some information about other countries agriculture systems and technologies. They also suggested that the radio producer should give them chance to send their feedbacks to the radio and ask their questions through phone.

4.8. Group listening and individual listening of agricultural radio program

The experience of group listening of the radio was remarkable. A group of farmers from Chawghai village of Aybak district were gathered to listen to the radio (poultry) program in order to experiment a group listening method and also to observe farmers perception and ideas about that method. This method was done by researcher and two EW. The farmers listened to the program very keenly and they were really excited about the outcome of that method. Listening of farmers to the radio as a group for 15 minutes was interesting; they listened to that particular program with enthusiasm. At the beginning of the programme farmers were asked to listen to

the programs carefully and at the end if they had any question they could ask from the EW or team leader to write it for them and they did what they were asked to do. The interview part was difficult for them to understand because of the technical words, but the drama section was very interesting for them to understand. Drama did not only entertain them also made them to understand the message well. When the program finished they were asked to ask their questions and share their experience with each other and they managed well to do so. They shared their knowledge and asked each other about their activities and the way they solved their problems meanwhile the EW also give them information about the particular message. Farmers expressed their interest for group listening, they expressed that if they listen to the programs as a group they can learn from their counterparts and if possible they should be given chance to send their feedbacks to the radio producers or other related person in order to take part in the improvement of the program. It is worth to be mentioned that from this method farmers have been encouraged not only listen to the programs at their homes even in their farming groups.

The researcher attended one of the radio programs (pruning) with a farmer from Aakh Mazar village of Aybak district in the evening. The farmer listened to the program carefully and at the end of the program she shared her understanding about that program. She indicated that the programs was interesting to her and gave her information about her daily activity which was really important for her to learn because she were facing some problems and now by listening to the programs she would put it into the practice whatever she has learned. She also mentioned that meeting the EW is not an easy task and until the EW comes to their groups the time passes and it would be too late to prevent them from their production losses. The respondent liked the content of the program but she said that the language of the program was not quite understandable to her due to her low literacy level and also the program did not give full information to her. When she was asked to give her comments to the related person in the radio, she replied that she is excited to share her knowledge with other female farmers and she is excited to ask questions from the experts through radio.

The comparison of both group listening and individual listening show that the language of the program was not quite understandable which is a barrier for the audience to comprehend the message well and language is an important part in communication. . Listening to both programs was a new experience to the researcher. The researcher observation from the group and individual listening was; within groups farmers were able to share their experience and learn from each other. Listening individually to the radio program was quite different from the group listening because listening to the program individually did not have opportunity to know about others experience and to share the radio messages.

5. Discussion and Conclusion

This chapter will present an analysis of the major findings that were demonstrated through literature review, personal observation and data analysis and at the end based on that the conclusion of the research project will be presented.

5.1. Discussion

Communication is a participatory process which is essential for behaviour change. It involves literate/ illiterate, rural and urban men and women to take part in this process. Considering that the audience of a medium is various people in terms of literacy levels and rural areas residents, the message of the communication needs to be defined and designed for different target audience to bring social change at each level and also to reach each part of the rural and urban areas. The results show that most of the farmers were in age group of 31 to 40, 41 to 50 and 51 to 60 years. Most of them were not able to read and write. The marital status of farmers was also really high and 77% percent of them were married. They had joint families and due to cultural norms they were not allowed to sell their crops outside their homes. This basic information help the radio producers to develop the radio messages according to their audience educational level, occupation, attitudes, behaviour, beliefs and other norm of audience. Hence it is important to mention that the number of the program which HLP aired until present were not based on having basic information about its audience because in the content of the programs like language of the program were not according to audience educational status due to the usage of technical words. Furthermore the appearance of women in the programs were really less in amount which needs to be more visible.

The radio producer does not apply monitoring mechanism to know if the programme is perceived useful or interesting to the farmers or not. Radio producer mentioned that they get the feedback of farmers about the quantity and quality of the programs by local radio stations. The local radio station prepared a listenership feedback report about the agricultural radio programs once and it only interviewed farmers whether they listened to the programs or not. The ICC also reported that they interviewed target farmers through EWs in the field on monthly, by monthly and quarterly basis and if there is a new idea or problem in broadcast, they report to the Ministry and they take in account their ideas, but surprisingly the farmers were not aware of such procedure even they reported that they never talked about RAM in their producer groups. In this regard -MAIL does not involve literate, marginalized and rural people to be part of the development process and in line with Sopory (2008) idea which he states that communication accounts as an active participation of the audience in the development and to sharing their knowledge and concerns about development parties. These findings have contradictions that HLP argues that they take farmers ideas in account and in order to involve them in the development process, but farmers were not aware about such issue.

Communication process is considered complete when the receivers understand the meaning of the message and for that choosing a proper language is essential. The result shows that 19% of the respondents had language problems and were not able to listen to the programs. It results that still the usage of proper language is not considered. Although two languages are the national languages but other common local languages also should be taken into account. As in Zambia the agricultural radio programs were aired in English and other eight local languages per week. Airing the programs in different local languages makes the radio to attract different kinds of audience and it enlarges the expansion of radio outreach. The language needs to be according the receivers local dialect and literacy status. Using many technical words distracts

audience attention towards the program. If the audience does not understand the language of the program, they would not learn and get the information which is required to be understood by the audience. In the process of communication the accessibility of the medium to the audience is important. As the results shows that farmers were aware about the radio programs, but did not have their own radio sets which might impede them from listening to the radio programs. However, this study seems to confirm that radio is the most effective medium with low cost. It is however worthwhile to mention that the study revealed that some farmers did not have radio sets due to its high costs. This shows that the claim that radio is one of the most effective mediums requires that farmers are able to have access to it even at work, at home or anywhere else.

Mass media is essential in reaching a large number of audiences who are not physically present, however time flexibility is important in using any kind of medium, particularly radio programs that sometimes it may have conflict with the working time of farmers which prevents them from listening to the programs. This was noticeable in this research as results show that 61% of the farmers liked the airing time of the programs, but majority of them preferred the airing time late in the evening, because on that time they get free from their work and will be able to listen to the programs. Similarly the report of HLP radio programs has contradiction about farmers' preferences to the radio airing time with the research findings. Farmers appreciated the sections of the programs, but the relation or link between all the radio programs were less, as it had to have link. This issue is in lines with the learning process which should not be disrupted. In order to get best results, the new knowledge needs to be integrated with previous knowledge which is important for continuous learning process.

Communication is considered as a social process designed to bring together both the sender and the receiver in a two- way process. Both parties are involved in the process of communication and are both sender and receiver who shares knowledge and information between each other. These knowledge and information is taken based on the needs, strengths and interests of both parties in order to comprehend the message well. As it is realized that the radio broadcasts the agricultural programs based on seasonal calendar not taking farmers interests and requirements for the agriculture messages and it is also seen that it is a one way process of communication because in the process of communication the sender and the receiver are required to share their knowledge and information, but in radio programs of HLP the receiver is passive and only receives the information there is no such way to interact to the message and information which is gained by the receiver. The sender even does not make sure that whether the message is understood clearly or not or what type of obstacles affect this process. Unlike, ICC of HLP mentioned that they do make sure whether farmers listened to the programs or not through extension workers.

The result indicates that 31% of the farmers shared the information with other farmers of their family members which shows that a very less portion of the respondents shared the message regularly, while 44% of them shared the message sometimes. Most of them mentioned that they do not know about the proper way of sharing the messages among each other. So the result reveals that the communication process among farmers in the issue of sharing the information is not effective, because according to the work of mass media the information requires to be in different locations and through this method it give people chance to learn.

The results also show that female farmers do not have access to other agricultural resources except meeting the extension workers and listening to the radio programs. Most of them prefer

radio than any other medium and meeting EW. Radio is an effective medium due to low literacy requirements and its easy access of farmers to the radio sets. In this regard it is recognized that radio crosses the boundaries of distance and educational levels.

5.2. Conclusion

The results of investigating the role of Agricultural radio programs in enhancing Afghan female farmers' agricultural knowledge shows a great potential that radio is an effective medium to increase agricultural knowledge of female farmers. Most farmers have big desire to use radio in their daily life rather than any other mass mediums.

Finding and maintaining good access to information and media is one of the most important issues for Afghan women in rural areas. In a country which is known for poor infrastructure and communication, radio is a valuable medium for women to get updated information. However, there are agricultural radio programs which are being broadcast to HLP 11 focused provinces but there is an opportunity to make significant improvements in the quality of agricultural activities of Afghan female farmers via radio agricultural programs.

Although women comprise an important audience for radio programming, women have not been granted an unprecedented public voice in their nations history and yet cultural and religious reasons restrict women's' mobility in rural contexts. Radio is often the only connection for women to be in touch with outside world and get updated information or gain knowledge through radio.

Agricultural radio programs contributes to the knowledge enhancement of farmers, but the number of the programs which were aired until present were very less in amount which seemed that within 15 minutes and airing two programs per month is not enough for farmers information needs and on the other hand there is lack of extension workers in the Aybak district of Samangan province.

The result identifies that female farmers have access to the radio sets but do not have their own radio sets. They only have one radio set at their home which is being used by all family members. Also the farmers listening ownership is always individually not within the group, even in their group they do not discuss the programs, if this method continuous those farmers who listen to the programs will become less in the passage of time due to lack of follow up of them and one way communication process.

The farmers liked the educational and entertainment approach that the programs have at the present. Although they suggested that the duration and the airing time of the program should be increased and it should be in Uzbaki language.

The findings show that the radio messages were relevant to the daily needs of female farmers. So far female farmers appreciated all the agricultural programs which were aired in the radio and they expect that these programs will improve their productivity.

The research also found that the learning space between MAIL and female farmers are really high. As it is revealed from the interview with ICC of HLP, HLP do not have full information about the female farmers' listenership and sharing of the information among other farmers. This issue also cause that female farmers were overlooked and in the number of programs they did have fully participation. However, female farmers have big desire that these programs should be continued and they suggested the number of various messages to be aired through radio.

Moreover, in the present study, it is appreciated that use of TV, printed material as agricultural information source was nil. The similarity affirms the results of the present study. The results also shows that radio is a prominent tool for enhancing farmers agricultural knowledge in the

Aybak district of Samangan province and majority of the farmers preferred radio than other medium or meeting the extension worker, reason is that they can easily have access to it and it is an educational tool to increase their agricultural knowledge.

6. Recommendations

Based on the research findings and conclusion there are some recommendations which are instructed in the following.

6.1. Recommendations for HLP:

It is recommended that HLP should focus more on the airing of agricultural radio programs audience particularly female farmers who have been overlooked during civil wars of the country and have limited access to technical assistance. Therefore the more focus of the programs should be on effective utilization of agricultural radio programs by female farmers in order to create a participatory and developing dialogue with the farmers.

It would be advisable for MAIL to make sure that farmers have radio sets and listen to the agricultural programs. If the women do not have radio sets at home MAIL needs to create an alternative way for them to have access to radio programming or distribute radio sets in rural communities.

In many ways the research raises more questions than it answers. However, the finding strongly suggests the current radio agricultural programs need to be improved and should consider audience needs and wants in respect with the programs. It is important for the MAIL to invest more time in to feedback mechanism and audience reception studies which has not been done in a proper way or has not been done in a proper way or have not done the follow up.

Airing agricultural programs in two languages and using formal and difficult words in the programs, alienates a substantial segment of the population, due to their low literacy and different language spoken. An immediate and easy way to encourage female farmers to listen to the programs is to use simple and everyday words like BBC's radio program airs currently in the country, New Home, New Life is a good example in this respect.

MAIL needs to consider the communication flow. It needs to pay attention to the main or important extension messages which farmers really need in order to give complete information in the best airing time with extended program duration in order to create a strong listening base among female farmers.

It is recommended that HLP needs to provide opportunity for farmers to listen to the radio programs in a group in order to motivate farmers to share the messages of the radio among each other. This method is possible by organizing farm forum organization. It is also beneficial for those who do not have access to the radio sets and besides that they can share each other experience in regard with the particular messages.

Agricultural radio programs have a huge potential to be further improved and should satisfy its listener. As meeting extension workers is not always possible for female farmers and also they do not have access to other media it is recommended that HLP should extend the radio programs airing time and its duration and by doing this HLP would be able to cover various extension messages.

The importance of this study is for both female farmers and HLP radio communicators. This study does not outline to solve Afghan female farmers agricultural problems, but it gives insight to HLP about the importance of agricultural radio programs in enhancing Afghan female farmers' agricultural knowledge. Also further research on mediated communication in the

country is required to contribute in the development process of Afghan female farmers. Considering these issues the research needs to be elaborated to do further studies to respond to Afghan female farmers' agricultural needs so this process requires to be continued.

6.2. Recommendations for the researcher:

It was a memorable experience for the researcher to carry out the research for the first time during her life. She learned many things from doing this project. One of the most important things is that she got information about her own country and its nation particularly Afghan female farmers. Due to first experience of doing research, this project may lack the most important issues which were essential for the project to be mentioned, however it is part of the learning process and human beings learn from doing mistakes. Thus, it is recommended that the process of learning should not be stopped after compilation of this project, it should be continued. Furthermore the researcher is recommended to study more about some topics which have not been discussed in the literature review like, sharing the information among farmers, radio and learning spaces between farmers, characteristics of a good message, relevancy of the agricultural radio programs to the audience information needs and etc. It is also recommended that the researcher should continue doing research in the respect of media in Afghanistan.

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Annex-1: Questionnaire for female farmers

Date: _____ Time: Started at: _____ Ended at: _____

(A) General Information

Name: _____ Family name: _____

Province: _____ District: _____ Village: _____

Mobile Number: _____

Age group:

a) 16-19 ☐

b) 20-30 ☐

c) 31-40 ☐

d) 41-50 ☐

e) 51-60 ☐

f) above 60 ☐

Literacy Level:

a) Can read only ☐

b) Can read & write ☐

c) Cannot read & write ☐

how many years of schooling? _____

Marital Status:

a) Married ☐

b) Unmarried ☐

c) Widow ☐

d) Divorce ☐

Further details about you and your family :(number of family members, your activity, family income, and ownership of farm)

1) If you have any question or need any help to improve your work, whom do you contact?

B) About the Radio programs

2) Do you have electricity at your home?

a) Yes ☐ b) No ☐

If yes: Do you have 24 hour electricity or only for some hours?

3) Do you have radio at home?

a) Yes ☐ b) No ☐

4) What do you need to run the radio?

a) Electricity? ☐

b) battery ☐

5) Do you know about the agricultural programs aired through the radio?

a) Yes ☐ b) No ☐

6) Do you listen to the agricultural programs aired in radio?

a) Yes ☐ b) No ☐

If yes, how did you know about radio programs?

If No, why you do not listen?

7) Do you have time to listen to the radio?

a) Yes ☐ b) No ☐

8) How often do you listen to the agriculture programs in radio?

a) Always ☐ b) Often ☐ c) Occasionally ☐

9) For how long have you been listening to the agricultural programs in radio?

a) For the last two years ☐

b) For the last one year ☐

c) Since recently ☐

10) Why do you listen to the agricultural program in radio?

11) Where do you tend to be when you listen to the radio?

a) At home ☐ b) At work ☐

c) Somewhere else ☐ d) Any where ☐

12) Does the airing time suit you?

a) Yes: ☐ b) No ☐

If no, what is the best airing time for you?

a) Early in the morning ☐ b) Late in the morning ☐ c) Before noon ☐

d) Afternoon ☐ e) Evening ☐ f) Late in the evening ☐

13) Is the duration of the agriculture program in radio adequate?

a) Just adequate ☐ b) A bit long ☐ c) A bit short ☐

Remarks

14) Do you like these programs?

- a) Like very much ☐ b) Like somewhat ☐ c) Do not like it ☐

15) What do you like in these programs?

- A) The interviews ☐ b) general information about the topic ☐ c) drama ☐

16) How do you find the language of the program?

- a) Quite understandable ☐
b) Somewhat understandable ☐
c) Not understandable ☐

17) How do you find the agriculture drama program in radio?

- a) interesting ☐ b) somewhat interesting ☐ c) not interesting ☐

18) How useful do you find the agriculture drama program in radio?

- a) Useful ☐ b) Somewhat useful ☐ c) Not useful ☐

If not useful, what is the reason?

19) On the whole, how do you find Agricultural radio programs aired through radio?

- a) Very useful ☐ b) Useful ☐
c) Somewhat useful ☐ d) Not useful ☐

20) Are the programs relevant to your daily needs?

- a) Relevant ☐ b) Partially relevant ☐ c) Not relevant ☐

21) Do the programs give you complete information on agricultural activities?

- a) Complete ☐ b) Somewhat complete ☐ c) Not Complete ☐

22) Have you learned anything from the agricultural radio programs?

- a) Yes ☐ b) No ☐

If yes please specify:

23) How much has it helped you to improve your work?

a) Highly ☐ **b)** somewhat ☐ **c)** Not at all ☐

24) How do you put the messages in to practice? Please tell us about the radio messages and the way you have applied in your farming.

25) Do you share the messages you receive from the radio with your family members and other neighbour farmers?

a) Yes ☐ **b)** No ☐

If yes, how often do you share the radio messages with others?

b) Always ☐ **b)** Often ☐

c) Sometimes ☐ **d)** Seldom ☐

If your answer is NO, what is the reason?

26) Have you ever tried to contact the radio producer or relevant person in the radio programs to ask any question or give feedback?

a) Yes, I did: ☐ **b)** No, I did not: ☐

c) I did not think of it ☐ **d)** I do not know how to communicate with them ☐

Reason:

27) What difficulties or problems you face while listening to these programs?

28) What other resources are available for you to get related information according your activities?

- a) Print Media ☐
b) Meeting the extension workers ☐
c) Electronic Media ☐

29) What type of extension messages do you prefer?

- a) Meeting the extension workers ☐ b) Radio programs ☐
c) TV programs ☐ d) Print media ☐
e) Others (please specify) _____

Reason:

30) Do you want the ongoing radio program on agriculture to continue in the future?

- a). Yes ☐ b). No ☐

If Yes, why?

If No, why?

31) What are your suggestions for additional extension messages in radio for improving your farm works?

32) How the programs can be improved? Please provide your suggestions below:

Annex 2: Questionnaire for radio producer

Introductory questions:

- 1- How often do you air the programs
- 2- How long do you air the programs?
- 3- *How many provinces you have covered by airing these programs?*
- 4- How did you prepare the programs?
- 5- How did you come up with airing such programs?

Regarding language

- 6- What is the language of the programs?
- 7- How are languages barriers overcome? (Several dialect in a small area?)
- 8- *If there would be other language spoken beneficiaries resides in the area they would not understand what you will do?*

Regarding drama

- 9- Why you chose drama for making agricultural radio programs?
- 10- Who are your characters for making dramas?
- 11- How useful do you find dramas?

About the audience

- 12- *Do all the people in the target group have access to the radios?*
- 13- *If they do not have radios do you help them to have radio at home?*
- 14- *How the audience know about agricultural programs?(who inform them)*

Evaluation and assessment

- 15- What do you want to achieve by airing these programs?
- 16- How do you make sure that you reach your target groups?
- 17- *Are the target groups already in touch with each other?*
- 18- *How do you make sure that radio programs improve agricultural activities of female farmers?*
- 19- How do you make sure that farmers learned from the programs?
- 20- *Do the radio programs change female farmers' agricultural knowledge?*
- 21- How do you make sure that farmers not only listen to programs even they discuss & act as well?
- 22- How often do you do the follow up on the programs with listeners? Do the target groups talk about them?
- 23- Are there opinions noted and taken in to account when the media are used again?
- 24- What is your understanding about the radio farm forum organizations?
- 25- How do you evaluate the communication process through radio programs?
- 26- How are the radio programs evaluated (the methodology and the context; what are the criteria of success or failure?
- 27- *Are you successful till now to reach your target group and they have listened to it?*
- 28- What are your future plans for broadcasting the agricultural radio programs?
- 29- *What are your plans to improve your radio programs?*
- 30- *How do you receive feedback of farmers according to radio programs (especially female farmers)?*

About TV

- 31- Have you ever had agricultural TV programs?
- 32- How do you compare TV programs with radio programs? Which one is effective? Why?
- 33- *Do you have plan to telecast TV agricultural programs?*

About media

- 34- *How do you compare print media, extension workers trainings (interpersonal communication, with electronic media to enhance afghan female farmers' agricultural knowledge?*

Annex: Photos with Farmers



Photo: research filling questionnaire with a female farmer



Photo: Researcher listening to the agricultural radio program with a group of female farmers



Photo: Researcher listening to the agricultural radio program, live with a female farmer