

## The Role of Radio and Television in Rural Agricultural Development

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### ABSTRACT

Radio and television are potential for knowledge dissemination. This study investigated the usage of radio and television as sources of agricultural knowledge among rural farmers. Radio and television were among the seven sources of agricultural knowledge among rural farmers. Radio sets were more accessible and owned by more farmers than television sets. Researches indicate that majority of farmers who used radio and television as sources of agricultural knowledge preferred to listen and watch agricultural programmes respectively during evening and night. Accessibility of radio and television sets, language, number of agricultural programmes broadcast and awareness of the broadcasting time of agricultural programmes were among the factors influencing their usage as sources of agricultural knowledge. For improving the accessibility of agricultural knowledge radio and television stations should perform agricultural knowledge needs and enhance timely dissemination of needed knowledge.

Keywords: Radio set, Agricultural extension, Programmes, Television, Communication.

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### INTRODUCTION

Agriculture is an important sector because it is the source of food and other raw materials for industries. In developing countries, the sector is the major employer and driver of the economy. Due to changes surrounding agricultural production and the scarceness of important resources for agricultural production including land, labour, capital and the need for quality agricultural produce to meet the expectations of the market the agricultural sector needs adequate access to agricultural knowledge. Therefore, making timely accessibility of agricultural knowledge among farmers is important for them to make rational decisions related to agricultural activities. Various channels are used to disseminate agricultural knowledge to farmers; the most traditional but still most used among farmers in developing countries the face to face communication which is the most traditional channel in the history of mankind. With this channel of communication, communicators may employ different modes (facial expressions, gestures, intonation, words

and body language) to convey a single message. It also enhances immediate feedback because the communicating parties are in the same physical location. However, the channel is known for its shortcoming of distorting messages as they are passed from one person to another [1] [2].

Advancement in technology has brought about new communication channels which are either standalone or mediated communication devices. These channels include the print media, demonstrations, different mobile phone applications, radio and television sets and web based (include social media) channels. Decision on which communication channel to use depends on the awareness and credibility of media [3], media richness, characteristics of the message being communicated, availability of feedback mechanism and urgency of the message [4]. Moreover, the quality of the communication infrastructure being used for transferring a message affects the level of usage of some communication channels. For example, the quality of roads can affect the transfer of print

media while that of ICT networks affects the adoption and usage of radio and television sets, web based media and mobile phones [5].

Strategies employed in communicating agricultural knowledge may differ by type of a knowledge being communicated, credibility of the channel, level of development of the communication infrastructure, rural-urban settings, intended audience, dispersion of the intended audience and literacy level of the intended audience [6]; [7]; [8]; [9]. It is for these factors some communication channels may have a lot of advantages to others.

Dissemination of agricultural knowledge in developing countries needs the consideration of channel and associated factors which may influence the delivery of the message. For example, rural areas in most of the developing countries have poor and impassable roads mainly during the rainy season [10] when agricultural activities are at their climax. This limits the dissemination agricultural knowledge packaged in print media. Likewise, most rural areas in developing countries do not have access to ICT networks and computers [11]. This limits the use of web-based media in disseminating agricultural knowledge. Moreover, disseminating agricultural knowledge through face to face communication channel in rural areas in most developing countries is limited by the poor farmers to agricultural extension offer ratio [12] [13].

As opposed to agricultural extension, radio and television stations have a great potential of being able to reach more people at a given time because broadcasting are made possible through satellites and antennas [14]. Moreover, conversion from analogue to digital radio and television broadcasts has made the accessibility and reach-ability of radio and television frequencies wider [15]. Radio and television broadcasts are known to reach most rural areas and there are some radio stations which are limited to semi-urban and rural areas of the country.

### **The Strength of Radio and Television As An Agricultural Extension Tool**

The strength of radio and television as an extension tool is widely regarded to lie in its ability to reach illiterate farmers and provide them with information relating to all aspects of agricultural production in a language they understand. This does not mean simply reading technical information over the airwaves in local languages, but understanding the way farmers themselves discuss their problems in the community and providing relevant information in the local agro-ecological and cultural context.

Extension services have been criticized both for failing to reach the majority of farmers in many developing countries and to communicate successfully with those that fall within range. Rural radio and television offers both the reach and the relevance to its listeners when the programs are generated in a community-based and participatory fashion. More than any other mass communication, medium, radio and television speak in the language and with the accent of its community [16]. It is easy to understand the appeal to listeners of having local issues discussed in the 'accent' of the local community. The challenge for international organizations such as FAO has been to use radio and television as an rural extension tool which can take technical information from the wider agricultural research community and translate it both literally and figuratively into the local language with the most appropriate 'accent' for the target audience. This requires a shift away from simply delivering extension 'messages' and a move towards understanding the local farmers and their knowledge of the subject in question.

The experience of four rural radio and television stations set up in Southern Asia in 1999 with technical assistance from FAO found that listeners' groups were very helpful. The cotton farmers, in particular, formed groups in order to coordinate their production which was a partner in establishing the radio and television stations. The radio and

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television stations already established in South Asia are part of a wider project of community empowerment involving the establishment of over 40 community radio and television stations between 1995 and 2014. This is part of the government's plans to promote democracy and decentralization and encourage the formation of community groups such as farmers' organizations. Participation in constructing and financing the stations has been fundamental to their establishment, and the staff and programming committee have all been selected locally by the community.

### **Radio and Television and the Agricultural Sector**

Radio and television stations set up in rural areas have a predominantly agricultural clientele. Whether those who run them are pursuing the development objectives of the station's founder or simply aiming to entertain, they are aware that agricultural issues are very high on their listeners' priorities. However, agricultural extension systems have only shifted to more participatory approaches relatively recently and so much of their early efforts used the top-down technical scientific information approach which tended to ignore the diversity of both local agricultural problems and the farmers' existing knowledge and skills [17] [18].

Other social development sectors, such as health and education, have been more effective, using rural radio and television to communicate messages to a target community or a specific demographic group. In many areas radio and television stations have become highly valued for interacting with specific disadvantaged groups and for handling complex social problems. Youth radio and television, for example, has emerged as a powerful tool for international organizations promoting the UN Convention on the Rights of the Child, encouraging children to participate in and produce programs on issues that are important to them.

It is useful to consider the use of radio and television as an extension tool for

agricultural development in this context of wider social development concerns. There is however a political dimension that should be explored, although by necessity only briefly here, before considering the use of radio and television in agricultural extension more specifically. Rural radio and television in many countries has been promoted as part of a broader process of democratization. The development of decentralized and pluralistic media also corresponded to many of the objectives of the World Bank's structural adjustment policies aimed at reducing state monopolies and encouraging privatization. The process of achieving radio and television pluralism, however, has not always been smooth.

The FAO developed the Strategic Extension Campaign (SEC) methodology in many countries of Asia and Latin America in order to support the local extension agents in their work whilst also harnessing the multimedia tools available to encourage greater community participation. Various media were employed including local radio and television, posters, local theatre, audiocassettes, comics and silk-screened printed materials. The radio and television slots were used strategically to advertise the key messages of the campaign and target particular listeners' groups [19]. For example, the campaign in Malaysia, in collaboration with the FAO's Inter-Country Program on Integrated Pest Management in Rice in South and South-East Asia focused on rat control. Based on a survey of the extent of the problem and focus group discussions on approaches being used to tackle the problem the campaign began in 1985 with a series of training workshops for the core group responsible for the management of the SEC.

Agricultural extension programs are prepared by trained community radio and television agricultural extension officers. Their role is to visit farmers in the community, discuss their problems and priorities, then prepare a series of discussions with local experts, a drama or

a combination of techniques including interviews with farmers in the field. The programs are felt to be far more accessible to local farmers if they can hear themselves or their neighbors discussing the issues directly on the radio and television. [20] has observed that, 'it is no longer considered good enough for media professionals to isolate themselves from the audiences they are supposed to serve.' In order to achieve a level of farmer participation the radio and television extension officers have to spend at least 12 days a month recording out in the villages, spending the rest of the time editing in the studio with the producer, tracking down specialists from the district offices of the Ministry of Agriculture, regional universities and local NGOs, and researching the program topics.

#### **Factors Influencing the Usage of Radio and Television as Sources of Agricultural Knowledge**

Findings indicate that several factors influence the usage of radio and television as sources of agricultural knowledge among farmers. They are as follows:

**Time for airing agricultural programmes:** Time preference accessing agricultural radio and/or television programmes among farmers is contrary to the broadcast time of most agricultural radio programmes. According to a research conducted by Focus Group Discussions, most radio agricultural programmes were broadcasted during morning hours; however, most farmers involve themselves in agricultural activities from morning to afternoon and prefer listening radio agricultural programmes in the evening or at night. This imply that airing agricultural radio programmes during morning or afternoon limits more than half of the farmers from accessing agricultural knowledge through radio. This is supported by [21] [22] who also found that listenership to radio agricultural programmes become high if such programmes are aired during farmers' preferred time.

#### **Ownership of radio and television sets:**

Among farmers radio broadcasts were either accessed through radio or mobile phones with a radio application [23]. Most of the farmers use radio sets on their phones while many of them also own radio sets. Moreover, findings indicate further that majority of the farmers who own radio sets used them for accessing agricultural knowledge. Therefore, ownership of radio sets by farmers is determinant of physical availability of the medium, ownership enhances farmers' exposure to radio agricultural programmes [24] [25]. Moreover, all farmers owning television sets used them for accessing agricultural knowledge. This implies that agricultural programmes broadcast through television station can have a stronger impact to farmers than the same aired through a radio station. Generally, ownership of a communication tool has a direct influence on usage of the tool as a source of agricultural knowledge.

#### **Quality of signals**

The quality of signals influences the usefulness of radio as sources of agricultural knowledge. According to Focus Group Discussions, some few areas had poor radio reception; this limited some farmers from accessing knowledge [26]. Results revealed the problem of poor reception did not influence those using television sets because they had to acquire and install satellite dishes or antennas for receiving television broadcasts.

#### **Costs associated with acquisition and maintenance of radio and television sets**

The costs associated with maintenance of radio and television sets are high. Some Farmers have to acquire an alternative source of power if not connected to the national electric power grid. Those who use television may find it difficult to make monthly subscription as to get television channels. Those who do not have money for subscribing television channels are limited from accessing agricultural programmes [27] [28]. Therefore, costs associated with

acquisition and maintenance of television and radio sets had a direct influence on usage of radio and television as sources of agricultural knowledge.

#### Relevancy of contents

Not all agricultural contents broadcasted through radio and television stations are relevant to all farmers. Sometimes not all agricultural knowledge categories needed by farmers were delivered through these radio/television programmes. Moreover, some of the knowledge categories are delivered without considering the cropping calendar. This is supported by [29] who also found that not all knowledge categories needed by farmers were broadcast by mass media. This had a

negative impact on trust of radio sets as a source of agricultural knowledge.

#### Language

Some television stations broadcast agricultural programmes in foreign languages mostly English and this makes it difficult for farmers to understand the message being delivered. They can only manage to watch a programme but cannot understand what is being spoken. Showing the importance of using well knowledge languages for agricultural broadcasts [30] [31] states when languages other than those used by majority of farmers are used for broadcasting agricultural programmes through radio or television stations, the reach becomes very limited.

#### CONCLUSION

Radio and television have an effective role in improving awareness, increasing level of knowledge of the farmers and adoption of improved agricultural technologies by the farmers and assisting them by providing market information.

They also have effective role in increasing agricultural production and agricultural income of the farmers. However, several constraints are still being faced by the farmers in using radio and television in agriculture

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